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REAUTHORIZATION OF THE URBAN MASS TRANSIT ACT

HEARINGS

BEFORE THE

SUBCOMMITTEE ON
HOUSING AND URBAN AFFAIRS

OF THE

COMMITTEE ON
BANKING, HOUSING, AND URBAN AFFAIRS
UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

SECOND SESSION

ON

THE PREPARATION FOR MAJOR NEW MASS TRANSIT LEGISLATION TO REAFFIRM THE FEDERAL GOVERNMENT'S RESPONSIBILITY FOR DEVELOPING MODERN TRANSIT SYSTEMS IN THE NATION

AUGUST 7, 1990—LOS ANGELES, CA
AUGUST 8, 1990—SAN JOSE, CA

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REAUTHORIZATION OF THE URBAN MASS TRANSIT ACT

TUESDAY, AUGUST 7, 1990

U.S. Senate,
Subcommittee on Housing and Urban Affairs,
Committee on Banking, Housing, and Urban Affairs,
Los Angeles, CA.

The subcommittee met at 10 a.m., in the board room of the Rapid Transit District Office, 425 South Main Street, second floor, Senator Alan Cranston (chairman of the subcommittee) presiding.

Present: Senator Cranston.

OPENING STATEMENT OF SENATOR CRANSTON

Senator **Cranston**. Welcome. I apologize for the delay, which was caused by a lack of proper equipment.

I welcome all of you to today's hearing.

The Senate Housing and Urban Affairs Subcommittee, which I have chaired for the past 3 years, is responsible for the authorization of Federal mass transit programs.

This is the first of a series of Senate hearings on the reauthorization of the Urban Mass Transit Act.

The original legislation, enacted over 25 years ago, established a Federal commitment to public transportation.

At the time, transit was a failing industry facing declining ridership, unsustainable labor costs and sky rocketing fairs.

Much was accomplished since then, but obviously much, much more must now be done.

Today, mass transit is in many ways a vital and mature industry that reflects the many successes of a committed public private partnership.

Federal, State and local governments, along with private interests have provided financial support in many communities to revitalize and develop mass transit systems. But while great strides have been made in recent years our country now faces even more difficult transit problems.

Among them are population growth, decay in air quality and intolerable congestion on our road ways. It's time to reaffirm our Federal commitment to transportation and to build on the substantial progress that's been made in these last 25 years.

Our hearing today will focus on two fundamental issues that must be addressed before drafting the new Federal Public Transportation Policy.

Today the Government General Accounting Office will present a preliminary report, which I requested, about the Urban Mass Transit Administration—performance and technical problems the agency is experiencing with regard to oversight, funding allocations, grant agreements and regulatory requirements.

We will also consider how UMTA can best meet the country's increasing mass transit needs. I'm particularly interested in hearing the suggestions of regional transit agencies, such as the LACTC, as well as the private sector with regard to congestion management and how successful local programs could be implemented at the national level.

Three years ago I instituted a massive nation-wide effort to address our appalling lack of affordable housing. No where is the housing problem more obvious than right here in California.

I set out to draft and pass a bold new Federal Housing Policy to help provide the affordable housing that our country needs now and for the future.

Just a few weeks ago the National Affordable Housing Act was passed by the Senate with an overwhelming vote of 96 to 1.

Today I'm announcing that I'm making a similar effort to shape a national public transportation policy that focuses on our regional and national needs now and in coming decades.

I intend to introduce this legislation next year.

I will first invite the leading organizations and experts in the mass transit field to submit by September 10 their recommendations for what we should do. They will be published by the subcommittee.

I will then convene a conference of the country's top mass transit experts at the U.S. Capital to review the recommendations. I will also convene a series of conferences in California focusing on the unique transit problems that we face here.

Finally, the Housing subcommittee will hold an extensive series of hearings in preparation for major new mass transit legislation.

That legislation will have to be enacted by October of next year—so our time is limited—when the present authorization expires.

It must reaffirm the Federal Government's responsibility for developing modern transit systems here in California and around the nation.

State and local governments simply are incapable financially of mounting effective solutions without adequate Federal support.

A transportation policy that continues to rely heavily on automobiles forces us to depend on foreign oil. We are already experiencing almost instantaneous increases in oil prices due to Iraq's invasion of Kuwait.

Our Federal transportation system must be incorporated into our long range national energy and security policies.

Our productivity in international competitiveness suffers as well when the Federal Government fails to assist states and localities with their transit problems.

Japan and Western Europe invest heavily in ultra-modern mass transit systems that get workers to and from work efficiently and swiftly. Meanwhile, Americans are forced to sit for hours on congested roadways.

According to a 1983 Federal Highway Administration study, 11 percent of all Federal labor force work hours are spent on the highways. That translates in our State alone to 300,000 hours lost each day due to traffic gridlock.

That was 7 years ago. The situation is obviously worse now. Over the next 20 years if we fail to act wisely freeway congestion will increase more than 400 percent, while congestion on other roadways will increase by 200 percent.

The Transportation Research Board has reported that the annual delay in travel time will increase by 5.6 billion hours, excess fuel consumption will increase by 7.3 billion gallons per year, and total cost to travelers will increase by $41 billion per year.

Right now nearly 6,000 miles of California main roads are operating at near capacity, and some beyond capacity. A report earlier this year states the growing traffic congestion costs nearly $17 billion for California drivers alone. This number is expected to triple in the next 10 years.

Equally troubling in the increasingly harmful effect all this has on our physical health. Automobiles are the largest source of smog in urban areas.

California has the unfortunate distinction of having the most severe air quality problem in the country, with over 50 percent attributable to automobiles.

We experienced 75 percent of all the nation's smog level exposure above the national standards. The California Air Resource Board estimates that smog is creating crop losses of over $300 million a year in our State.

Like the economic effects of congestion, this hurts not only California but also other parts of the country that rely on California produce.

Los Angeles faces the worst air quality problem in the nation. Air pollution costs the residents in this area alone as much as $13 billion a year in health expenses and damage to crops.

It's increasingly clear that Los Angeles will not be able to meet federally mandated air quality standards unless it completes an effective mass transit system.

The L.A. County Transportation Commission has already made a herculean effort to begin the task of building Los Angeles County's first REAL system in over 30 years.

The Blue Line Service, which just opened up connecting Long Beach to L.A., was completely locally funded.

The commission has worked closely with Congress and the administration in constructing a second major line. I've been working to get both the House and Senate Appropriation Committees to fully fund this project.

Finally let me say this; if we are to continue and expand the successes in this area a meaningful and long term Federal role is absolutely essential.

Thirty-five years ago our country undertook a monumental effort to construct the interstate highway system. That program was a great success and one in which we all have a right to be proud.

But highways alone no longer meet our transportation needs, obviously. We must now direct our efforts with equal ambition and commitment towards providing a successful mass transportation system that will ensure the health of our environment and the economic soundness of our urban and suburban centers.

The UMT reauthorization and the completion of the interstate highway system gives us a tremendous opportunity to reevaluate the ways the Federal Government can help address our problems of congestion, pollution, land use and dependence on foreign oil.

This is the start of that process. I look forward to continuing to work with our witnesses today and others throughout the State to take full advantage of this land MARK opportunity.

So let's begin today's discussion, and I again thank you all for being here to participate in this.

We combined the first two panels because of our delay in starting are; Jim Sims of the Commuter Transportation Service, Chris Essel of the Hollywood Mobility Action Committee, David Roper of Caltrans, Kathleen Imanishi of KCET Public Television, Judy Weiss of LACTC, Reed Royalty of Pacific Bell, Thomas Wood from the Foundation for Consensus and Transportation, Richard Edgar who is the Mayor of Tustin, and from the Orange County Rapid Transit District, and Dana Reed of Orange County Transportation Commission.

If you would proceed with very brief statements that you would like to make about these problems I've touched on then we'll go onto some questions.

Whoever wants to begin first please go ahead and do so.

JUDY WEISS, LOS ANGELES COUNTY TRANSPORTATION COMMISSION

Ms. WEISS. Good morning, my name is Judy Weiss and I'm the deputy executive of the Los Angeles County Transportation Commission.

The mission of the Los Angeles County Transportation Commission is simple to state and difficult to accomplish.

Our goal is to improve the mobility of Los Angeles County.

As a United States Senator I know that you are familiar with the corridors of power. This morning I would like to introduce you to the corridors of congestion.

The map before you today, which is right behind me, shows the eight most congested corridors in Los Angeles County.

To qualify for this unique distinction traffic has to be more than slow and heavy. These include freeway segments where traffic is slower than 30 miles an hour for more than 5 to 6 hours daily.

In these areas bus route boardings are in excess of 20,000 boardings a day, and local arterial intersections are defined as level F, which typically require cars to wait through at least two signal cycles.

Are there solutions, yes, we think so. We do not believe that this is a hopeless problem. As we continue our work on the light rail and metro rail projects we are also watching a new program to address these issues.

I'd like to talk to you today about the initiation of the State's Congestion Management Program.

National attention was recently focused on California and whether the so-called tax revolt had ended with the passage of major gas tax increase.

Voters in California not only passed the gas tax, but passage of proposition 111 also triggered AB1791, a bill which mandates the development and implementation of a congestion management program in all of the State's urbanized areas.

The congestion management program represents a major breakthrough in State transportation planning. It ties land use and development to transportation planning and programming, and it also recognizes the need to plan our regional basis.

Many of the mobility problems experienced by Los Angeles County residents are the byproducts of land use planning by 88 separate cities making development decisions unilaterally without consideration of the impact on either the Regional Transportation System or their neighboring jurisdictions.

Under the Congestion Management Program local jurisdictions cannot promote development at the expense of another without placing their future gas tax revenues in jeopardy.

The Los Angeles County Transportation Commission will be assuming the role of the county's congestion management agency.

The legislation specifically requires that the congestion management agency oversees this county-wide program.

As a congestion management agency we will be responsible for monitoring the program on an annual basis to ensure that all the cities and the county are in compliance.

The law became effective on August 1, and we will be working cooperatively with the Air Quality District, the Southern California Association of Governments, and all of the affected jurisdictions to develop the Los Angeles County plan.

Of importance is the fact that the congestion match the program considers not only capital projects, which increase a capacity of our transportation system, but we will also be looking at the management of our transportation resources.

Critical elements of the congestion management program will include the following: Transit standards for frequency, routing and coordination with other operators, traffic levels of service standards for a system of regional highways and roadways designated by the program, trip reduction and travel demand strategies.

My colleague, Jim Sims, president and commuter of the Transportation Services is here today to speak of the great potential which TSM has in improving mobility in this county.

And finally, land use impact analysis, which will identify traffic impacts associated with new development and determine the costs of necessary mitigation.

We will also have a 7 year capital improvement program which will maintain or improve traffic levels of service, transit standards, mitigate regional transportation impacts and conform to air quality mitigation measures.

This is an extremely ambitious program. Through the Congestion Management Program the region has been provided with a powerful tool to plan effectively and cooperatively, and to address our key transportation issues with additional resources.

Our implementation schedule calls for adoption of the program by December 1991. I look forward to reporting to you in the future, discuss our experience and hopefully our success in this bold effort in regional transportation planning.

And finally, Senator Cranston, I'd like to thank you for your support for the commission's efforts on our metro rail program and our light rail program.

Senator Cranston. Thank you very, very much. And thank you for completing your statement in 5 minutes.

I want to explain that your full statements will go into the record if you have submitted prepared statements to us. I do ask you to summarize your statements in not more than 5 minutes, less if you can, so that we'll have time for discussion.

So, should we just move around the table?

DAVID H. ROPER, CALIFORNIA DEPARTMENT OF TRANSPORTATION

Mr. Roper. Thank you, Senator, and good morning. My name is Dave Roper. I'm deputy district director of Caltrans here in the Los Angeles District.

It's a pleasure to be with you this morning and give you some information regarding a project that we're implementing on the Santa Monica Freeway, or in the Santa Monica Freeway corridor.

It's a project that's been talked about for a long time designed to reduce congestion and improve the movement of both people and goods along a metropolitan transportation corridor through making better use of the existing city streets and freeway in that corridor.

We call it the Smart Corridor Demonstration Project, it's being carried out jointly by Caltrans, the City of Los Angeles, the California Highway Patrol, FHWA and the L.A. County Transportation Commission.

The all too common problem that we're attempting to address is that as motorists we tend to overload one facility that we view as the best facility for the trip we intend to make, and other parallel routes are significantly under utilized. So that the one facility is jammed with traffic while the parallel routes are empty.

The concept of the Smart Corridor calls for balancing traffic demands to all available facilities both streets and freeways within the corridor, and in this way the heavy congestion that results from the overloading can be eased.

We do this through application of a variety of traffic management techniques that are used to encourage motorists to divert and spread out that traffic load to all of those parts of the total system.

Surveillance and detection systems are used, motorist information systems, ramp metering, automated traffic signals, control systems.

The backbone of that concept is getting real time traffic information to the motorist or the soon-to-be motorist in order that the least congested route can be chosen by that motorist.

First of all, up-to-the-minute information must be collected, and then it must be distributed in a variety of ways to the motorists either already in their vehicle and underway, as well as to those at home or at work that are about to begin a trip.

Electronic message signs and other communication systems can be activated to further encourage the diversion, the timing of ramp meters and traffic signals can be modified to further encourage and to accommodate the diversion.

In the Santa Monica project, traffic operation centers currently operated by Caltrans and the City of Los Angeles will be linked together. Traffic information on the two types of facilities will be shared in order to form a comprehensive picture of congestion conditions in the corridor.

That information will then be provided to the commuters through the changeable message signs located on the freeway and others to be placed on surface streets as part of this project.

Through traffic reports that are currently being made by commercial radio stations and television stations. Through the use of low powered highway advisory radios in the corridor that will be placed as part of the project. And through special in-vehicle electronic maps that are being provided in a limited number of vehicles under a related path finder project in that Santa Monica corridor.

And then the various management techniques, ramp metering, automated traffic signal systems, closed circuit television, motorist service patrols, instrument management teams will also be used in order to help minimize congestion and keep that traffic moving.

The total cost of the project is about $50 million. We are currently on line with the design, conceptual design has been completed and final system design is underway.

Some elements are already in place and are operating now. Some of those elements have been in place for several years. It's expected that the project will be fully operational in early 1993, and then we'll have a demonstration and evaluation period.

We think that the application of the principles of this Smart Corridor makes a lot of sense. It makes more efficient use of the systems that are in place, those systems having been paid for by the public. And when we look at them today, very frankly, we as a society are not using those very efficiently.

Importantly it calls for a partnership. A partnership between various public agencies, the private sector and most of all, the public.

We think that it stresses the idea that the way we as a public use those systems really affects the way those systems will meet our needs and how they operate.

And if we can get the public to make some changes that has the potential of really helping this system then meet the needs.

In other places where that concept has been used in a limited kind of way it really has shown some great potential for improving that urban mobility.

That concludes my remarks, Senator; again I thank you for inviting me here to speak to you on this project, and I would be happy to respond to questions.

Senator **Cranston**. Thank you very much. Those Smart Corridors I'm very interested and eager to try those Smart Corridors out myself.

CHRISTINE ESSEL, HOLLYWOOD MOBILITY ACTION COMMITTEE

Ms. ESSEL. Good morning, my name is Christine Essel, and I've worked in Hollywood for the entertainment industry for the past 12 years. I moved to Hollywood about 2½ years ago and shortly after that Councilman Woo and Mayor Bradley appointed me to the Hollywood Mobility Action Committee.

I'm here today, I don't have quite as elaborate a program or presentation as yours, but I think the Mobility Action Committees are very effective operations and very valuable to the community.

Mayor Bradley established the Mobility Action Committees approximately 3 years ago in order to make improvements necessary to enhance mobility on our surface street citywide.

Our committee consists of Government and city officials, including the Department of Transportation, parking enforcement, the Bureau of Engineering, the police department, the City Council Office, the Chamber of Commerce, the Community Re-development Agency, and Caltrans, of course depending on the agenda various people will attend. It also includes residents and local business representatives.

The community's responsibility is to bring to the committee those traffic related problem areas that require immediate solutions.

In many cases we have our own recommendations as to how these problems can be solved. We look for solutions that can be handled in a short term, efficiently, quickly and at a relatively low cost.

Our requests are evaluated by the technical staff, some are implemented immediately, others require further study and reported on at subsequent meetings.

This program is funded out of the general fund by a $25 increase in peak hour parking violation fines. These fines are used to fund the traffic flow and safety improvement projects which are generated by our activities.

There are six primary types of improvements that we focus on. Things such as left turn pockets, continuous channel lanes, reversible lanes, left turn restrictions, peak hour lanes, and traffic signal timing.

Some of the individual projects that I have been involved in are—one being my favorite; working on the extension of the peak hour restrictions to 7 p.m. in the evening.

On the streets throughout L.A. it's been 4 to 6 for a long time, but we all know the peak hour goes way beyond 6 p.m. So I have been encouraging that on individual streets, and I understand Mayor Bradley has a citywide campaign now to look into that.

Also traffic lights that are out of sync waste a lot of commuters' time. So, we identify those streets where the timing of the lights aren't working.

We've also had a project on the boards to create signage to alert motorists to take alternate routes when the Hollywood Bowl is having an event.

We work on things such as adding left hand turn signals to intersections that require it, or even to encourage traffic to take a direction, that direction as an alternate route. We might create a left hand turn signal.

Parking matters are also part of our subject matter, and things like preferential parking zones are subjects of many discussions.

We also contact local businesses that generate a lot of traffic, like a health spa or a restaurant to determine solutions or to create mitigation measures for the traffic that's being created.

We also have stayed closely in touch with the community redevelopment agency and the transportation plan for Hollywood on issues concerning more long range planning.

This committee has proven to be very effective and efficient method of problem solving. There's a lot of overall cooperation for those of us who volunteer our time. We know we are making a difference in the community, we see immediate results, especially on our drive home.

Thank you.

Senator **CRANSTON**. Thank you very, very much.

RICHARD EDGAR, ORANGE COUNTY RAPID TRANSIT DISTRICT

Mr. **EDGAR**. Good morning, Senator Cranston. I'm Richard Edgar, chairman of the board of directors of the Orange County Transit District, I am also mayor of the City of Tustin and a member of the Orange County Transportation Commission.

I'm pleased to have the opportunity to talk about OCTD's current services as they relate to congestion management, and about our thoughts on reauthorizing Federal transportation assistance.

First let me describe the environment in which the OCTD operates in Orange County. Once we were in the shadow of Los Angeles, now we are an enormously successful and powerful economic engine in our own right. After three decades of explosive growth Orange County is now home to 2.3 million people of increasing ethnic diversity. There are 1.2 million jobs in Orange County and we have an unemployment rate of less than 3 percent.

Since much of Orange County's growth has come after the slowing down of State and Federal freeway building, Orange County has turned to local programs to meet our transportation needs.

Such as: Our developer fees are the highest in the nation, paying for roads well beyond the actual site of developments, including a fee program that is a catalyst for California's first three toll roads.

We lead the State in miles of high occupancy vehicle lanes with more under construction. We are well on our way to completing a 110 mile system of exclusive lanes for car pools and buses.

We recently introduced our first southern California commuter rail service running between South Orange County and downtown Los Angeles. And along with other counties in the region is experiencing a resurgence in public interest in rail transit. In addition, our bus system is carrying 46 million passengers per year.

While we have had trouble convincing our local voters to agree to increasing the sales tax to finance local transportation projects. We are encouraged by the local results of the voters on the three transportation measures on the June ballot.

One bond measure passed in Orange County the gas tax increased and the second bond measure failed by a very small percentage.

Because the Orange County Transportation Commission, including myself, feels so strongly that we need local money, especially to match new State funds, we will again ask the voters to approve a ½ percent sales tax in November 1990.

With this background I will now turn to our key recommendations for a new national surface transportation program.

These are: Preserve and protect the Federal revenues that have built and supported so much of our transportation system. We view the fuel tax as a user fee, it should be dedicated to transportation investments. We recommend that you make permanent the highway trust fund and the revenues to support it.

Maintain a strenuous opposition to increasing fuel taxes for the purpose of reducing the Federal budget deficit.

Preserve the 85 percent minimum allocation of fuel tax dollars to California.

Spend down the highway trust fund balance to prudent levels at a reasonable rate and gradually lift the obligation limits for transportation programs to prevent further buildup in the trust fund.

Continue the Federal role in the rehabilitation and replacement of the Federal aid highway system.

Continue the Federal support of transit programs, including the dedication of at least 1 penny of the fuel tax to transit. We support both the formal and the discretionary programs and would also support greater flexibility in their use.

I am enclosing an agenda to this statement which describes a specific project for which OCTD is seeking Federal capital assistance for part of our transit way program.

Now, let me describe the Orange County's Congestion Management Plan.

OCTD participates in city's and county planning effort mandated by the recently passed State transportation package of bills.

While this planning emphasizes the role of Government in congestion management, OCTD works closely with employers in various programs related to their meeting air quality regulations.

I am now going to describe these two activities and how they relate to each other.

OCTD offers a family of services to the commuting public. In addition to our successful transit operation which already surpasses previously projected 1994 ridership levels, our community network department serves as a local commute management agency for Orange County.

OCTD is also a partner in a major facilities development program 100 miles of transit ways and high occupancy vehicle lanes, which will provide commuters with the travel times savings incentive for participating in ride share arrangement.

At the primary Orange County agency responsible for the implementation of transportation demand management strategies commuter network works extensively with employers to develop and maintain corporate ride share programs.

We do this by helping employers to collect and analyze employee commute origin data, and preparing a detailed proposal for each company that describes how to implement an effective TDM program.

Possible strategies can include car pools, transit use, van pools, telecommuting, alternative work hours, and in short, any activity that reduces trips to the work site.

Each corporate ride share program is custom tailored. That is, commuter network will not only recommend the strategies most likely to be effective given a companies unique employee demographic profile.

For example, if most of the company's employees are long distance commuters van pool formation activities would be emphasized.

Conversely, if more employees are close in transit, walking and bicycling would be emphasized over van pooling.

Clusters of employees can be more effective in managing transportation demand than could individual employers. Therefore, OCTD works with such groupings called Transportation Management Associations or Commute Management Centers.

For example, we worked with a large group in the South Coast Metro area providing staffing on site as well as technical assistance. We have newly begun working with similar groupings in San Clemente and Laguna Beach for which we provide only technical assistance.

These programs are partially funded by Federal Suburban Mobility grants from the Urban Mass Transportation Administration.

Air quality and congestion management requirements have generated a significant amount of employer interest in the Commuter Network Program. For example, in the first year after the South Coast Air Quality Management District, regulation 15 was adopted, Commuter Network generated 93 percent more commuter match lists than had been generated the previous year. We expect to see continued strong demand for Commuter Network services, particularly as regulation 15 is expanded to require businesses with 25 to 100 employees and companies located in multitenant buildings to participate.

Regulation 15 is only one small part of the overall Air Quality Management Plan. The AQMP will strive to attain Federal air quality standards in the South Coast Air Basin within the next 20 years. Under the AQMP, cities and other local governments will be required to enact ordinances that require employers to implement alternative work hours, satellite work centers, telecommuting into an increased workload on commute management agencies such as Commuter Network.

Additionally, a State required Congestion Management Program is being developed to link TDM to other issues, such as land use patterns and capital improvement programs, that play a role in generating traffic. As TDM is more like to produce some short term results, we expect it to be the cornerstone of the CMP. As a result, Commuter Network, as the TDM implementation agency, can expect to see a significant increase in demand.

The most significant issue with relationship to this increased demand for TDM services is providing for adequate funding to meet the need. This issue is not likely to be resolved exclusively at the local and State level.

Finally, since many of these air quality regulations have their origin at the Federal level, I would like to encourage the Congress to explore revising Federal tax policies to be consistent with the Federal air quality goals. For example, currently employer provided free parking is classified as a nontaxable working condition fringe benefit, while the employer provided rideshare subsidies, with the exception of some minor transit benefits, are fully taxable to the rideshare participants.

Thank you for the opportunity to discuss the thoughts of the OCTD on reauthorizing Federal surface transportation assistance; and to describe the specific programs for congestion management in which OCTD is involved.

This concludes my presentation.

Senator CRANSTON. Thank you very much.

THOMAS WOOD, FOUNDATION FOR CONSENSUS IN TRANSPORTATION

Mr. WOOD. Good morning, Senator. I'm here representing the Foundation for Consensus in Orange County. We're a diverse group made up of business leaders in the community, environmentalists, community activists and developers. I happen to be a lawyer with the law firm of McCuthchen, Doyle, Brown and Henderson. And incidentally, Senator, Dan Curtin in our firm asked me to pass along to you his greetings, and say hi to Mary Lou Neeley for him and to thank you for your meeting with him a short while ago.

I want to tell you a little bit about the foundation and what our purpose is, and what some of our activities have been in the transportation area.

We were formed a little over a year ago because of the concern of any citizens in Orange County regarding the adversarial nature of that—that involves the transportation and environmental issues.

Many of our members had been attending public meetings and would notice that the different interest groups would be presenting more or less a narrow view of the problem to the decisionmakers.

And we felt that only limited progress was coming because of that approach. What we thought was needed was an ability to reach some kind of consensus so that a common viewpoint could be presented to the decisionmakers.

We also saw a need for a broader education of the public concerning transportation and environmental issues. So, out of this concern our organization was formed.

Our mission is to educate the public regarding land use and transportation issues, and encourage community agreement on the solutions.

Since being formed we feel we have had some significant input and impact on reaching solutions in these areas. In 1989, our group formed a Speakers Bureau and we made presentations concerning a ballot measure in Orange County to increase our sales tax by a half cent to fund transportation improvements.

Now, through that effort we reached over 5,000 citizens in our community. Our presentation merely explained what the facts were regarding the transportation system, the declining amount of funding for the transportation improvements in the county, and we explained what the ballot measure program was.

That measure did not pass last year but it appears that it is going to go before the voters again this November, and we will in all likelihood be making a similar educational effort to explain to the voters the nature of this program.

Just last June we held two public forums at which we received public input concerning the placement of this ballot measure before the voters again, and we passed our results onto the Transportation Commission.

The foundation also is involved in the open space and park preservation within the county. We are concerned about methods for funding the acquisition of open space and we feel the citizens of Orange County recognize that there has to be a coordination between increasing and continuing development on the one hand and preserving open space on the other.

We were sponsors of an in depth public opinion survey that was done within the last couple of months concerning the public's attitude about using tax revenues for public acquisition of property to preserve as open space.

One of the measures that was specifically emphasized in this poll, Senator, had to do with acquiring land in Laguna Canyon to preserve it and to modify a development that's planned for that area. And I'm aware that the Senator's concerned about that specific situation.

Also because of our efforts we've induced the county to be hiring some consultants to investigate different ways of funding acquisition of land to preserve as open space and parks.

We feel our experience has given us several major points or conclusions that we would like to pass along to you, sir.

We feel that building consensus is terribly essential and important but it is time consuming. We feel that in today's environment private sector groups need to build consensus so that elected officials can be presented with some common areas of agreement towards the solutions.

We know that business and community leaders need to hear from Government leaders such as yourself, that the building of such consensus to find solutions is a very desirable way of approaching these problems.

Ideally some limited public funding should be earmarked or made available for this effort because of the worthwhile goal that it works towards.

Communities that connect transportation projects to growth and development management should be rewarded in some manner. We feel that Orange County is a leader in this area and could share some interesting lessons with other communities.

As we approach the 21st century faced with growth and development pressures that could endanger our environment and economic vitality, we must be committed to develope a common vision.

The usual approach of interests groups battling each other at public hearings and in the courts is only sometimes effective and always costly. That approach often delays and sometimes prevents projects sorely needed by our communities.

We believe that in formed consensus building can aid Government decisions addressing our transportation and land use problems resulting in better planned and healthier communities to live and work in.

Senator, we commend your efforts to improve the Federal Government's programs for finding and funding solutions for these transportation matters. We thank you for inviting us to address you this morning.

Senator **Cranston**. Thank you very, very much.

REED ROYALTY, ORANGE COUNTY TRANSPORTATION COALITION

Mr. **Royalty**. Good morning, Senator, thank you very much for inviting me here this morning. I was introduced as the area vice-president for Pacific Bell, my real role this morning is to represent the Transportation Coalition, which is a group of the 17 largest employers in Orange County.

Our interest in transportation is that among us we employee about 100,000 people in Orange County and we have to get them all to work one way or the other.

I'm here this morning to talk specifically not about another problem but about a partial solution to the transportation problem, and that is telecommuting.

We find that at least 50 percent of our employers—employees rather, and the percentage is growing, don't really work with hardware, with equipment and so forth, they work with information.

Now, moving people to the information is slow, it's laborious, it's expensive and it's polluting. On the other hand, through telecommuting we can move the information to the people and we can move it there at the speed of light, and there is no labor cost, it's cheap, and there's no pollution and it causes no congestion.

If only 5 percent of the existing commuters in Orange County telecommuted just one day a week we would save 90 tons of pollutants in the atmosphere during that week, and we would save 180,000 gallons of gas. Just with a 5 percent increase in telecommuting.

Pacific Bell, for example, has 150 employees in one of our Anaheim billing units that telecommutes, Statewide we have about 3½ percent of all of our employees, or about 2,000 employees at this point who telecommute on a regular basis.

Telecommuting can be as simple as simply picking up the phone or it can be as complex as using computers, and modems and fax machines, and things of that sort. But even if it's complicated or even if you use a lot of that State of the art equipment it's still very expensive to set up, very inexpensive to set up, rather, from a couple of hundred dollars to at most a couple of thousand dollars. And it only costs a little over $20 a month to operate a data access line to an employee in his house or at a telecommuting center. It costs just a little over $8 a month to operate a residence telephone line, and it only costs 2 or 3 cents a day to operate a computer in terms of power costs and so forth.

Our experience in the San Francisco earthquake illustrated the importance of telecommuting. Right after the earthquake for a week or two nobody could get into the city, the bridges were closed and so forth, so a lot of people were forced to try telecommuting, they did it and it worked very effectively in our company and in others.

Now, telecommuting isn't perfect, there is one major barrier to telecommuting, and that is the trust between the employee and the employer.

We have grown up in a society where employers think they have to see their employees in order to be sure they're doing an honest days work, and employees on the other hand want to be seen by their bosses because they feel that's a path to advancement in the business.

However, as we become more and more dependent on data and computers and things we find that that barrier is breaking down.

We have a nice example of a partnership between the State Government and the Riverside County Transportation Commission and private enterprise. We have a bill by Assemblyman Clute called AB3069, it's been coauthored by Assemblyman Kelley and by Senator Presley, which would set up a demonstration telecommuting center in Riverside to relieve the intense congestion we have from all the people who live in Riverside and try to commute into Orange County to their work places. That will be up and running and it will be a pilot project for about a year.

If I may take off my coalition hat and put on my telephone company hat for a moment. Another barrier to telecommuting is the restrictions that are left with the telephone company's after their break up with the Bell System.

In France, for example, practically all telephone subscribers have what's called a mini-tel, it was given to them free and they can look up as many as 12,000 different services right from their homes or their offices on the mini-tel system. And all the telephone companies in this country are banned from providing that kind of service.

When people can look up and get yellow pages type information right on their TV screens it saves them driving all over town for goods and services.

Thank you very much, Senator.

Senator **Cranston**. Thank you.

DANA REED, ORANGE COUNTY TRANSPORTATION COMMISSION

Mr. **Reed**. My name is Dana Reed and I am the chairman of the Orange County Transportation Commission and my remarks have been presented to your staff, so in the interest of time I think I'll just paraphrase them if I may.

Two things, Senator; number one, my colleague to my right, Mr. Edgar, is chairman of the Transit District, which is our equivalent of the RTD, and I'm the chairman of the Transportation Commission which is the same as the L.A. Transportation Commission.

If we were to have this hearing next year presumably we would be one in the same because we are sponsoring a bill to combine our two organizations which has passed the Senate and has passed the Assembly Transportation Commission and is expected to be signed by the Governor before the end of this legislative session.

So, we are combining our transportation agencies to better serve our constituents in Orange County.

Now, if we had had this meeting last year there would be little that we could say on the Transportation Commission's point of view as it bares to transit, but we have become the first agency in Southern California to introduce rail passenger service designed specifically for the commuting population.

And on April 30 of this year the Orange County Transportation Commission's commuter rail was introduced to southern California. It's unfortunately only one train a day, but we are averaging now up to almost 230 commuters a day, and the train leaves San Juan Capistrano in southern Orange County and comes right up here to Union Station in Los Angeles.

It's only a beginning and we want to add more trains and more importantly we want to be able to reduce our fares, Senator, because while our fares are 20 percent less than Amtrak's fares it still costs $280 a month to commute from San Juan Capistrano to Los Angeles. And we feel that that's just too high a price to take enough people off of Interstate 5, which is the primary reason why we have instituted this service, to get people off the freeways.

And we're close to completing this study and action plan for implementing full scale commuter rail operations between Oceanside, which is actually in San Diego County, and downtown Los Angeles.

And our challenge is to make the service work for Orange County commuters and yet still participate in an effort to provide a regional transportation system.

We're looking to you, Senator, and your colleagues in the Congress to cooperatively work together, as you and your staff has done for many, many years, and we appreciate everything that you and your staff have done in the past and look forward to working with you in the future.

And with that I think I'll pass it on so we have room for questions.

Senator Cranston. Thank you very much, and I appreciate those kind words.

JIM SIMS, COMMUTER TRANSPORTATION SERVICE

Mr. Sims. Thank you, Senator, my name is Jim Sims and I'm the president of the Commuter Transportation Service's Incorporated. We're nonprofit and we're the oldest and largest agency of our type in the country.

To a large extent what I'm going to say is going to echo and add some emphasis to what you've previously heard from Mr. Edgar and Mr. Royalty.

Our job is to try to implement and to encourage transportation demand management or TDM, as part of the total transportation package. We define transportation demand management as increasing vehicle occupancy; that can be in car pools or van pools, increasing transit use, and where possible trying to eliminate the need for the trip at all, such as through telecommuting, through shortened work weeks, 4-day work weeks, 980 plans. Whatever we can do to actually eliminate the need for people to commute.

One of the points I'd like to make is as part of the total transportation package we believe that TDM is very cost effective. For example, during the current year we'll provide services to over 3,000 employment sites in southern California, and these efforts are going to result in a reduction vehicle miles traveled of about 595 million vehicle miles.

It's going to result in a reduction of over 15,000 tons of pollution, and it's going to result in reduction of about 30.7 million gallons of gasoline.

All of these things we think are very important, we do this on a budget of about $7 million a year.

We also think that TDM is a nondisruptive way to solve many of our transportation problems. As we get into capital improvements sometimes we cause disruption in neighborhoods and we cause environmental problems.

With the use of TDM measures we can avoid some of this disruption and we can provide short-term solutions which even though they're short-term they're lasting and they're going to provide solutions for us all the way down the road.

We annually do a survey of commuter attitudes and commuter information, and I won't go into all of that because it sort of emphasizes what you've already heard.

But one of the things we've found this year is that people tell us that between 1989 and 1988, a period of 1 year, even though their average commute distance had not increased, the average time to commute one way had increased by 10 to 15 minutes. This is a major change in commuter perceptions in regards to the commute.

How they responded; well, commuters have responded by changing drastically at this point, their hours of work. The peak is no longer a 7 to 9 phenomenon. In 1988, 14 percent of the people told us that they reported to work at 7 o'clock or earlier in order to avoid the commute. In 1989, 1 year later, 28 percent of the commuters told us that they reported at 7 o'clock or earlier.

So I think we're finding that people are beginning to take drastic individual action in order to solve their own commute problems.

What we would like to recommend to you today in terms of recommendations are three things.

First I think in terms of Federal policy it's important to look at tax policies, as you've already heard as part of the transportation program. Even though it's not part of the Transportation Reauthorization Act, we believe that leveling the playing field between tax policy as free parking is not taxed versus transit or ride share benefits are taxed, leveling the playing field here would do a lot to increase transit use, to encourage car pooling and to encourage van pooling.

And we think that legislation such as H.R. 2265, which is sponsored by Matsui, would move us toward this direction, and we think that that's something that should be considered in reauthorization.

Also we believe in flexible funding. We think that the Federal Government should provide flexibility in funding and emphasize that flexibility by providing a common match ratio rather than matching certain programs at a higher level.

For example, on the State level, and we're also working to establish a neighborhood telecommute center in San Bernardino County, and one of the barriers we've come across is lack of flexibility in the use of funds.

There's a thinking that funds can be used for signals and for concrete but not for telecommuting centers, when actually you've heard that this can result in a major decrease in congestion on the transportation system.

We also think there's a great need for research. We've done a lot of research here in southern California regarding TDM and the effectiveness of TDM, but we believe in order to sell this to employers, to sell it to governmental agencies, to sell it nation wide, that the reauthorization should include a significant amount of funds for research on the traditional highway areas, transit, but also in the area of TDM.

In closing I'd just like to tell you that we appreciate the opportunity to share with you these view points. We think the ride sharing and demand management are a critical part of the package. We think that there are four objectives in improving air quality, of reducing congestion, of reducing energy use and improving the economic viability of the economy here in Southern California, are going to rely on a TDM and ride sharing as well as improvements to our capital system.

Thank you for the opportunity.

Senator CRANSTON. Thank you very, very much.

KATHLEEN IMANISHI, KCET PUBLIC TELEVISION

Ms. IMANISHI. Good morning everyone. Good morning, Senator Cranston. My name is Kathleen Imanishi, I'm human resources manager and employee transportation coordinator for KCET Public Television for southern and central California.

I'd like to thank you, Senator, for inviting me to speak about KCET's ride share program and giving me the opportunity to share my thoughts about the future of ride sharing in southern California.

Our mandate from the South Coast Air Quality Management District was essentially to create a program that provides incentives for employees to ride share. We had a special challenge in implementing a program at KCET because we are a relatively small nonprofit organization. This meant that we had to meet our goals while keeping our expenditures to a minimum.

I'm proud to say that after only 2 months of operation, 24 percent of our employees are now regularly ride sharing. I feel that this success can be attributed to three factors: The specific incentives that we offer, the willingness of our employees to become involved, and the one on one contact which is the backbone of our efforts.

I'd like to begin with incentives. Similar to other companies we offer free parking, an emergency ride home provision, ride share networking, flex hours, telecommuting, and the establishment of a ride share task force in which selected KCET ride sharers meet quarterly to discuss ways to improve the system.

These incentives, coupled with a kickoff reception for the program, helped to generate interest among our staff.

However, our most effective incentive has been to offer 2 extra vacation days a year for employees who ride share an average of 3 out of 5 days a week. You'll find a detailed description of this incentive program with my written statement.

The vacation days idea actually arose from our inability to offer significant cash incentives. And once the entire incentive program was announced, I found that the promise of 2 additional paid vacation days was in fact the biggest draw of all the incentives. Clearly, time off from work was at least as valuable as giveaways or cash. I think this vacation day incentive could be a valuable and effective part of every company's ride share plan.

I've also made some additional observations which I think will be helpful to your inquiry. One is the trickle-down effect of the ride share program in our employees' lives. Last week one of our TV directors told me that having biked to work 3 days a week to meet the minimum ride share requirements, biking has become a habit. Not only did she start biking 5 days a week to work, but she even started to feel guilty about driving her car on the weekends. As a matter of fact she now makes a list for errands that require a car, and waits until she can do them all at one time.

Once they get involved, people not only develop a new awareness of ride sharing, but it quickly becomes a familiar part of their daily lives. And once it's familiar, it ceases to be intimidating.

Now, what can the Government do to help us in the process of ridesharing.

In the larger context, I see the need for a more comprehensive involvement from agencies like Commuter Transportation Services. At the present time I receive a master list of people who work in the vicinity of KCET and are interested in ride sharing. However, the list is provided only once a year. If I were provided with a monthly update of this list, I could take fuller advantage of potential ride sharers in our area, and keep current as people move, come into the area or change jobs.

At a company level, I feel strongly that the Government should help out with funding, particularly with smaller companies. Money from the Government would allow smaller companies or nonprofit organizations like mine to more fully implement far reaching ride share programs.

For instance, at KCET we simply don't have the money to buy a van for van pooling, though we certainly have employees willing to use it. If we had a shuttle van or company car available at lunch time for employees to run errands or attend off site meetings, I know we could attract even more people to the program.

In conclusion, I believe that KCET's ride share program clearly demonstrates how government mandated programs can play an important role in resolving the critical pollution and congestion problems that we face in southern California. These are two of the most pressing issues of our times and our community, and your increased commitment to solving these problems is essential not only to our quality of life, but to our survival.

Thank you, Senator.

Senator **Cranston**. Thank you very, very much.

I thank each of you for very helpful testimony.

I have a lot of questions I want to ask each of you but unfortunately we have some pretty serious time constraints, so I'll only be able now to ask a few of these. I would like to write to each of you asking you further questions that we won't be able to cover now, and if you could respond in 2 weeks I'd appreciate it very, very much.

I know the challenge for all of us is a very, very great and significant one. Our success in dealing with these problems here in L.A., Orange County, southern California and the nation have a lot to do with each our society and our competitiveness with Japan, Germany, United Europe and other nations in many respects.

I'm interested in what you would identify as the two most important changes that we should try to make in the Reauthorization Bill that we'll have before us next year.

What existing provisions in the law need to be strengthened, what should we eliminate, what new items are required?

Could several of you suggest the two major things, you think we should set out to do in the act and then let's have a bit of discussion on that.

Who wants to start?

Mr. **Royalty**. I guess the two things, that probably the most important thing, and you've heard it around the table here this morning I think in various forms, is to give us more flexibility in the use of funds.

Eliminate the various cookie jars and put it into a fund that is available across the board for various solutions. Let those solutions be developed at the local level and then the funds be made available to those regardless of the fact that their transit solution, or an automobile highway or any other solution, or telecommuting, or whatever.

The second thing, we have moved more and more into an era of operating the systems out there. And achieving some significant benefits in terms of congestion relief through operational kinds of techniques and solutions.

At this time the Federal Government cannot participate in operational costs. The costs are confined to things of a capital nature. And yet as an example, the operation of an incident management program that's labor intensive but gets out there along with the various other agencies that need to manage an incident, can produce tremendous results in terms of congestion relief. And yet Federal funds cannot be used for that.

The operation of a service patrol can do a lot to relieve congestion by getting cars out of there and restoring capacity, and yet that cannot be paid for with Federal funds.

Senator **Cranston**. I think there are some forms of operation support that we should consider.

Mr. **Royalty**. Yes. I understand the need to put some sort of a constraint to that too because those operational costs—expenses are going on forever.

But to the extent that those operational kinds of programs relieve congestion then I think that they ought to be considered eligible just as the addition of a lane would be eligible as an example.

Senator **Cranston**. Yes.

Mr. **Royalty**. Senator, I'd like to go back to my remarks about telecommuting for a moment in response to your question.

I have found over the time that some of our local regulations as published by the AQMD and other agencies locally sometimes do not reward preparation to establish telecommuting programs.

They give credit for van pools, and they give credit for off shifting and 4 day work weeks, and things of that sort, but they do not necessarily give credit for telecommuting.

So, whatever comes from Washington I would encourage you to insure that it does include incentives or awards for telecommuting as well. Thank you.

Senator **Cranston**. Thank you.

Mr. **Edgar**. Senator, one of the things that I think is critical and I think it really comes at the Federal level, and that is that so many of the things that we try to do we find a level of inconsistency with clean air, with the AQMD, with some of the highway directions.

When all of these items has a conflict in terms of the technical issues and the way in which the things are administered, we find ourselves at the local level spending a great deal of our energy just in trying to resolve the inconsistency between agencies rather than putting our energies toward solving the problem.

So, I think that it would be very productive if there could be energy at the Federal level towards mandating that there is a consistent technical set of standards that come from the Government that is not in conflict with each other.

Senator **Cranston**. Thank you. Ms. Weiss.

Ms. **Weiss**. Yes, you asked for two suggestions, I'm going to suggest three.

I think basically to really improve mobility in Los Angeles County or anywhere we need cooperation, we need resources and we need technology.

In terms of resources I would have to agree with Mr. Roper that we're best left to make some choices, multi-mobile choices, we need the flexibility in our resources so that we can make the very, very best choices for ourselves.

We have recently organized at the Transportation Commission so that our programming staffs are multimodal. We are no longer having modes compete with each other for these very scant dollars. We're working together as a staff, coming up with multimodal solutions to our transportation problems.

I would also like to agree with Mr. Roper on the incident management issue and how important that is to mobility across the county.

On the map you'll note the Santa Monica Freeway, 10 percent of the truck accidents in the county occur on that freeway.

To have a tow service patrol on that freeway and be able to remove disabled vehicles quickly can result in a major increase in mobility.

We've found that 80 percent of our so-called sig alerts in Los Angeles are as a consequence of truck accidents. So, we need to manage our resources as well as build more.

But I would also say that we aren't a built system by any means in southern California. We have a freeway system, we now need to complete our rail program as well.

Senator Cranston. I want to move onto a perplexing problem and, that's the relationship between the Federal Highway Administration and UMTA.

They have significantly different standards, as you know, with regard to matching requirements and cost effective criteria.

Due to that difference, localities are led to choose whichever mode of transit is easier to fund sometimes, rather than which will most effectively and efficiently serve the areas needs now and in the future.

So, I'd like to ask your thoughts on this. To what extent should the Federal Highway and Mass Transit Programs become more integrated. How should we create greater flexibility in the use of Federal Transportation funds to allow a stronger multimodal approach to planning, funding and decision making?

I think we put a vast amount of money into highways and not enough into other modes of transportation. Now we face the perplexing problem of finding the resources to maintain the highways we have and keep them from collapsing, and yet we need new rapid transit systems. So how do we mesh these and how do we strike a balance in the funding between the two?

Mr. Reed. Senator, I think it's difficult for us to have an opinion as to how DOT should internally organize, but Mr. Roper's point, which we concur with completely, is that at the receiving end anyway that there should be more integration or coordination between the various modes just to alleviate exactly what you were saying.

And it's not only a problem intermodal, with our commuter train we had a problem with Amtrak and as to whether we were going to be a 403(b) or 403(c) or 403(d), and it's the same equipment, the same people, the same stations, everything is the same, but we're depending upon which code section we fell into at major, major significance.

I think eliminating those traps would be extremely helpful.

Senator Cranston. Do you have any thoughts on whether the transit component of the National Transportation Program could be structured along the lines of the highway program as the first step to bringing the two programs more together?

Mr. Edgar. Well, I would make the observation that in Orange County we're striving to do just that because we are justifying the construction of limited access transit ways in Orange County on the basis that it really fulfills a transit function.

And as that transit function is fulfilled then we're going to move significantly more people on those lanes of concrete. And we don't really know exactly where all this is going to lead to.

We know that we're going to get better movement of people as we get two and three ride pool usage, and we get van pool usage.

As the number of people increases it's my expectation that there could be some long term direction toward even more mass transit.

So, I think that there are opportunities, I think that the challenge is to have standards that are consistent, and if we can't have those consistent standards I think that the talented technical people both in UMTA and in FHWA certainly have the ability to talk to each other and to reach a consensus.

I think that the Congress should somehow mandate or even accelerate that they have to get together, rather to just let them be their own bureaucracy.

Senator CRANSTON. Some private employers in L.A. and elsewhere around the country have instituted a program to award employees who use available public transit to commute back and forth to work.

Can you tell me a little bit about your experience with those and what have been examples of successes you've seen or heard about?

Mr. SIMS. Senator, we have a lot of companies here in southern California doing exactly what you've said, and I think we tend to look at them on the cost side, but our studies indicate, for example, that their employees, and I think the employers know this, employees involved in ride sharing programs, employers that are involved in flexible work hours, tend to be more productive, tend to have less absenteeism and tend to just be better employees, and happier employees.

We've done a number of studies which I'll share with you, which show that there's a bottom line result, a profit result, related to participation in these programs, and that's why I felt like research had to be a part of the reauthorization bill so that we could gather more of this information and disseminate more of this information nationwide.

I think that to be successful the Transportation Program is going to have to bring in employers as part of the team and not just transit operators or ride share agencies or highway people. The employers have a major impact on how the system is used, how frequently it's used and demands on the system for the employees and also for the employees' activities during the day, work activities, work trips.

So I think that in structuring your proposal here what we should be doing is trying to figure out ways to not only have flexibility on the Federal side but to provide incentives to companies to in turn provide incentives to their employees to participate in these sorts of programs.

Senator CRANSTON. How can the Federal Government provide incentives or promote this in terms of private employers?

Mr. SIMS. First and foremost, of course, is tax policy. As long as we allow free parking to go untaxed and essentially penalize the employer not only in terms of taxation but also in terms of recordkeeping, if they want to provide transit or other types of subsidies, and I think we have a dual standard which is actually working in cross purposes to where we would like to go in this area, and where I think most other areas would like to go.

And I think there are ways that that can be structured to be revenue neutral. I know the deficit is a major issue, but I think there are ways and again we would like to elaborate with you on this further and later, but we think there maybe ways to do this in a way that does not make more difficult the issue of the deficit, but which would result in more intelligent use of our system here.

Senator CRANSTON. Yes.

Mr. Royalty. Senator, I'd add another dimension to what Mr. Sims has said about the rewards. And that is that the agencies that are operating facilities need to look for ways to also provide rewards.

Thinking of high occupancy vehicle lanes, certainly one of the greatest rewards to employees to join in ride sharing is the savings of time in going to work on an uncongested lane that is contrasted to that congested multi-use lane.

And so I think the owners and the operators of the systems out there, the highway systems, need to become a part of that whole solution, and in fact provide high occupancy vehicle lanes for those ride sharers to use.

The other incentive is in parking management. Employers can provide free parking for poolers. The idea of the extra vacation strikes me as a very unique innovative approach to it.

Senator Cranston. The time has come to move on to the next panel. Before we end this one let me ask if there's anything I didn't ask or should have, or anything that hasn't been covered that you want to get in one last word of wisdom about before we move on?

Well then, thank you very much for your help. I will be in touch with you in writing shortly.

Now we'll move to the next panel, devoted to UMTA oversight consisting of John W. Hill, Jr., Steven Diaz, Nick Patsaouras and Sharon Neely.

If you will please come forward. We may proceed now and I call first on John W. Hill to make his statement.

I want to remind each of you to try to do it in 5 minutes so we have time for some give and take on questions.

JOHN W. HILL, JR., RESOURCES, COMMUNITY AND ECONOMIC DEVELOPMENT DIVISION

Mr. Hill. Mr. Chairman, I'm pleased to be here today to discuss our work assessing how well local transit authorities' manage grant funds provided by the Federal Government through UMTA, and the nature of UMTA's oversight activities.

In summary of our work, as well of that as to the inspector general has shown that Federal Mass Transit Programs are at high-risk for mis-management.

UMTA as the agency that reviews and approves mass transit grants is responsible for ensuring that grantees are complying with the various requirements stipulated in the Urban Mass Transportation Act and in uniform grant regulations including Federal purchasing and contracting standards.

In lieu of more direct oversight UMTA relies on grantees certifying their compliance with all Federal requirements.

To supplement self certification an overseeing grantees' compliance, UMTA's regional offices have a number of monitoring tools. As shown in our first chart they include grantee financial and progress reports, site visits, annual audits, and triennial reviews.

Our work at two grantees and analysis of 25 OIG reports identified grantees' questionable use of over $100 million in grant funds. This work showed that grantees had not always complied with grant conditions and Federal requirements even though they certified that they had internal management control systems in place to insure such compliance.

Our next chart summarizes the types of grantee mismanagement we found. One UMTA grantee had been improperly charging certain costs to UMTA projects since 1974, resulting in an estimated $17.9 million in over charges.

In another case a grantee had included land acquisition and construction claims of $6.3 million that were not in the grant agreement.

Another grantee may have used UMTA funded inventory on nongrant projects resulting in about $4 million in unauthorized purchases.

An OIG survey disclosed that grantees' had not acted to close out grants at project completion. Timely grant close outs are particularly important because unused funds could be made available for other approved projects.

UMTA believes that grantee closeouts may be a problem nationwide. Many of the problems just mentioned should have been detected by UMTA oversight mechanisms.

In March 1989, we reported on UMTA oversight of the southeastern Pennsylvania Transportation Authority's procurement activities. Major procurement problems had been identified in the 1987 UMTA funded independent procurement review.

Our report disclosed that, although UMTA's triennial review of SEPTA did not include a detailed procurement assessment, UMTA's review indicated that SEPTA had complied with procurement requirements.

We concluded that UMTA's monitoring procedures were inadequate to detect the weaknesses in SEPTA's procurement system and made several recommendations to the Secretary of Transportation to better focus UMTA's monitoring tools.

UMTA also requires grantees to submit quarterly financial and progress reports, however, at one UMTA region we found the reports submitted by some grantees either did not contain information to be useful as a monitoring tool, or UMTA did not use them for this purpose.

UMTA's acting regional manager told us that these reports did not contain the information needed to detect grantee problems.

Based on our work DOT identified UMTA's oversight of grantees as a material internal control weakness in its 1989 report to the President, required by the Federal Managers Financial Integrity Act.

One reason that UMTA cited for its oversight problems was its ever growing work load and shrinking staff. The reports to the President also stated that in order to improve project oversight additional staffing is needed.

To correct this management control weakness the report stated that UMTA will require additional resources in both fiscal 1991 and 1992.

In its 1991 budget UMTA requested an additional 10 staff years for grantee oversight.

Mr. Chairman, my written statement also provides background on the Los Angeles area mass transit projects, discussion of our work on congestion, and outlines some of the issues to be debated during reauthorization hearings over the next year.

In the interest of time and so as not to duplicate the testimony of others I will close by saying that the issues raised today require innovative thought and action to find appropriate solutions.

We appreciate the opportunity to participate in this debate and would welcome the opportunity to testify again upon the completion of our work. We also commend the committee for holding these hearings to address these vital issues.

Senator **Cranston**. Thank you very much. I would now like to call on Steven Diaz of the Urban Mass Transportation Administration.

STEVEN DIAZ, URBAN MASS TRANSPORTATION ADMINISTRATION

Mr. **Diaz**. Good morning, Senator, thank you. My name is Steven Diaz and I am the chief counsel of the Urban Mass Transportation Administration, commonly called UMTA, which is an agency of the U.S. Department of Transportation.

Appearing with me today is Ms. Renee Marler, who is our regional counsel for region nine, which has jurisdiction over four States and two territories, including California.

UMTA is the principal source of Federal financial assistance for public mass transportation in this nation. Since its beginning in 1964, UMTA has provided $59.6 billion in funding to public transit systems throughout the U.S. Each year UMTA provides funds to about 450 urban mass transit systems through UMTA's formula and discretionary grant programs. UMTA also provides funding to nonurban rural communities through a series of programs administered through the State governments.

Under the Urban Mass Transportation Act of 1964, as amended, section 9 formula funds, which come from the general fund, are apportioned to urbanized areas using a formula based on population density and other factors associated with transit service and ridership. Grants under this formula program provide financial assistance for capital, operating and planning projects.

UMTA's section 3 program is one of the largest discretionary grant programs in the Federal Government. In fiscal year 1990, Congress provided UMTA with $1.3 billion in budget authority for discretionary grants. Funds for the section 3 program come entirely from the Federal motor fuel tax. The purpose of the section 3 program is to assist in the funding of high priority projects, or extraordinary projects, for which the costs exceed the level of available section 9 formula funds as well as local resources.

Region 9 is responsible for grants in several States, including California. The region has 88 grantees annually receiving about 100 grants, obligating about $500 million in Federal funds.

In this region there are over 400 active grants with total obligations of about $3.8 billion, of which $1.1 billion has yet to be dispersed.

The largest grants are awarded to regional transit agencies in Los Angeles, the San Francisco Bay area, San Diego, Sacramento and Honolulu.

Active grants to 15 grantees in the Los Angeles, Long Beach urbanized area amount to approximately $2 billion in obligations or about 53 percent of the total, of this amount grants for construction of the Metro Rail Subway in Los Angeles account for $1 billion.

Federal regulations require grantees to provide UMTA with considerable documentation on their use of Federal funds. This documentation is provided through narrative, project and financial reports which are provided to UMTA on a quarterly basis, as well as through other reports on significant issues related to specific projects.

UMTA grantees are responsible for the administration and the management of Federal grants in compliance with the terms and conditions of their grant agreements and their requirements of applicable UMTA circulars and regulations.

UMTA monitors grants to confirm the grantees establish and follow procedures that are both business-like and reasonable and comply with all Federal requirements.

UMTA receives information from its grantees at a level of reporting detail which assures that UMTA has the information needed to manage its overall program and to respond fully to specific requests from congressional committees, auditors and the general public.

With respect to UMTA's oversight jurisdiction or responsibility, it is important to note that UMTA is not a regulatory agency. Our oversight responsibilities are spelled out in our authorizing legislation. Specifically, section 3 of the UMT Act requires that no grant or loan shall be provided under this section unless the secretary determines that the applicant has or will have the technical capacity to carry out the proposed project on their own.

Section 9 of the UMT Act requires each recipient of funds to certify annually that it has or will have the technical capacity to carry out the proposed program of projects.

UMTA's determination of technical capacity is made using several means to supplement the grantees annual certification. Such means include progress and financial status reports, third party contracting reviews, project management oversight by independent Federal contract experts, quarterly project review meetings, triennial reviews, annual and special audits done by independent contractors of the grantee, day-to-day contact and informational meetings between the grantee and UMTA staff, and through grantee request for guidance.

In response to the desire for increased grants management oversight, UMTA has undertaken a number of actions to strengthen and improve performance.

These specific items will be the focus of my testimony before this subcommittee in its next meeting scheduled for San Jose tomorrow.

Let me conclude today's statement, Mr. Chairman, by emphasizing that UMTA takes its responsibility for identifying internal control weaknesses very seriously and it is aggressively pursuing actions to strengthen its oversight capabilities.

We look forward to working with the GAO and your subcommittee as we seek further improvements of our grants management system.

That concludes my statement.

Senator CRANSTON. Thank you very, very much.

NICK PATSAOURAS, SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

Mr. PATSAOURAS. My name is Nick Patsaouras, president of the board of directors. I would like again to take the opportunity to publicly thank you and express as a citizen of L.A. County my appreciation for your role in making the Metro Rail Project a reality.

It's important because the commission constructed and RTD is operating the L.A., Long Beach Line, which is very successful, and without the Metro that line would not be a reality.

I have submitted a written statement with some suggestions of how to improve the Federal administrative and oversight process with regard to rail starts.

In the interest of time I'm not going to read the statement but I want to address a very important issue.

Now, I know that this is not a foreign relations subcommittee hearing, but the timing of this hearing is very apropos.

There is a philosophy and policy in Washington that started with Reagan and continued by the Bush administration. Now, Senator, you know more than anybody in this room how many billions of dollars the U.S. is committed to expend year after year in the interest of our national interest.

But at the same time the bureaucrats in Washington have the audacity year after year to cut the operating funds for transit in this country.

Fortunately the Senate and the House have the good will and wisdom to rebuke that proposal, but it's still on the table. The Federal Government is proposing to cut $48 million from the operating budget of RTD. That would translate to a 25-cent fare hike, 10 percent services reduction.

The only thing we have to look at the charge there, the L.A., Long Beach line in 2 weeks, because we had free fare, carried 700,000 passengers.

Now, there's another graph because of the distance you cannot differentiate there are two graphs there, but the similarity in how they move is unbelievable. They used to do with operating subsidies and passengers the day when the fare was 15 cents we carried 1.5 million passengers a day. Today we have dropped 1.3, that means 500,000 trips a day are in this county.

We are spending billions of dollars supporting our interests in the Middle East and Turkey, wherever, God knows, by the same time we cannot support a transit mode in this country.

The Air Quality Management District requires RTD to move to a nine to a 25-percent mode slip for working. That means by the year 2010 we need 3,000 buses to bring on the road, $12 billion.

There is no funding aside, that's what I'm talking about, the schedule's frantic. I guess in Washington the way they're operating in L.A., they are trying to keep their telephone bills low, they don't communicate with each other. They make policies that are contradictory.

And you can see I'm emotional because I live it day in and day out. The buses out in the street are always crowded and some points they're 140 percent over crowded. I would like the Bush administration to answer that, and I hope you take that message to Washington, and it's about time they think collectively what it means. We are selling off the country, America is not going to be strong and independent unless we deal with the energy crises.

We are importing 49 percent of our oil today, and it's going up. Before I get more emotional I will stop.

Senator CRANSTON. Thank you for that heart filled testimony, and I agree very much with your statements. We've spent vast sums on military matters, I think more than needed. Certainly now we see that the nation we thought was an enemy—the Soviet Union—is no longer an enemy. Warsaw Pact collapsed. And yet this administration wanted to spend even more on military matters this year than last year.

The situation in the Middle East shows that we haven't spent our resources in the most effective way because we aren't able to do certain things we would like to do now in the Middle East. So we have to reappraise how we're spending. As well as spend less there on military matters and more on domestic needs like this.

The next competition is really economic. If we don't get our economic house in order by having a better transportation system so we don't strangle goods, services, and people here on the highways then we're not going to be competitive.

I'm now delighted to move to Sharon Neely, director of policy for the L.A. County Transportation Commission.

SHARON NEELY, LOS ANGELES COUNTY TRANSPORTATION COMMISSION

Ms. NEELY. Thank you, Mr. Chairman.

We're really excited that you've chosen to open your hearings here in Los Angeles, you heard testimony earlier from a representative from the commission about the situation in L.A. County, and as a leader in the Senate we're really looking forward to your assistance in passing what is going to be one of the most important bills in this decade.

From the commission's perspective, and I would whole heartedly support President Patsaouras' comments about where we are in the state of transportation today, I'm the director of policy and I've been actively involved in the Federal reauthorization efforts over the last several months and we look forward to working with you and your committee's efforts.

Just quickly, and I'm going to divert from my testimony, I would like to just highlight some of the comments from the commission prospective.

Not only are we actively working with all of the transit operators on the reauthorization, the commission also works with the 13 transit operators in Los Angeles County to implement the UMTA grant process, which we feel has been a very cooperative process.

So I would be happy to answer any questions. But I did want to highlight one issue for you today, just quickly, which is the lack—If there's one single issue today that I think really needs to be highlighted is that we're the one industrialized country in the world that doesn't have clear transportation goals and objectives.

We talked and we heard President Patsaouras' issue on the reliance of foreign oil and how we're really using more foreign oil now than we were in the 1970's during the energy crises, and how transit can play a role in this issue.

The Congress just passed the American Disability Act, and that's an important area that needs to be addressed in the national transportation policy, and clearly funds need to be provided to make that happen.

You will be discussing the Clean Air Act over the next several months, and again, the transit industry is wholly supportive of implementing the clean air, and we believe that transit can play a role in that.

But when you look at the United States and where we are in terms of what we're able to achieve. When we're attracting only 3 percent of the total trips into transit where we see other countries, such as Canada, attracting 15 percent of the total trips, or Sweden or England, which are three times the national average we find here in the United States.

Also when you look at the price of fuel, which is $2 to $3 in Europe and Canada and a $1 here, and the commitment to supporting the investments that are necessary for a transportation system.

Again, we support the concept that the national transportation policy has to look at moving people and not autos.

The testimony that we've submitted clearly outlines some of the areas that we think we could use your assistance on here in Los Angeles, otherwise L.A. will face a speed reduction or average speed on the freeway system today is 35 miles an hour. Our experts in Los Angeles County estimate that we loose $507 million alone in lost productivity time of our residents that are stuck in freeway traffic.

If nothing is done the speed is expected to decrease to 17 miles an hour over the next 10 years. Los Angeles County is embarking on an ambitious program with the passage of the gas tax here in California, and we're looking to be a partner with the Federal Government and as a result we're looking for a partnership with the Federal Government and some of the projects that we'll be facing over the next 10 years here in Los Angeles County.

Again, I'd be happy to answer any questions on the grant process, but that's quickly one of the issues we would really like to see your active leadership in with the passage of the reauthorization.

Thank you very much.

Senator **Cranston**. Thank you very much.

The GAO preliminary review suggested that there is some reason for concern that UMTA's practices may have subjected the agency to fraud and abuse.

For instance, GAO initially raised questions about the administrator's discretionary fund due to the lack of supporting documentation in that program.

GAO's testimony today states that UMTA has little assurance that the Federal grants it awards are being used in accordance with grant conditions and Federal requirement. Consequently grantees' mismanagement together with UMTA's ineffective grantee oversight places Federal mass transit grant programs at high risk of mismanagement.

I've unfortunately had to become very familiar with the fraud and abuse that infested the Department of Housing and Urban Affairs during the last administration.

The improprieties at HUD were also considered merely cases of mismanagement until the HUD inspector general and Congress investigated it more closely and discovered some much more unpleasant aspects.

Mr. Hill, I understand your office has only begun this investigation. But I'd like you to state as clearly and specifically as you can any types of fraud that you think are reasonably foreseeable that we should be aware of and take steps now to prevent in the future.

Mr. HILL. Mr. Chairman, let me state that we have not found any evidence that fraud or abuse exists, we have found evidence of mismanagement and so has the OIG.

There are a couple of conditions though, those which we mentioned before and in a previous report, that really give rise to the susceptibility for fraud or abuse.

The one condition that I would want to point out is that the administrator of UMTA in his decisions to award section 3, discretionary grants, really does not document the reasons that particular grants are being awarded over others.

We have no indication that there's any fraud or abuse associated with that award process. However, we're not able to specifically look at that award process in detail because the trail that would lead us to finding out if there were other reasons why those awards were made as they were is not there and it's not available for our review.

Let me reiterate that we have not found any case of fraud or abuse.

Senator CRANSTON. Is GAO still concerned about the administrator's discretionary fund and the lack of documentation connected to it?

Mr. HILL. Yes, we are still concerned about that.

Senator CRANSTON. To what extent are you concerned that UMTA doesn't have sufficient resources or is not properly organized to monitor programs sufficiently?

Mr. HILL. We had noted in our testimony that UMTA had requested an additional 10 staff years to really look at oversight, to increase their oversight of the grant funds.

Our concern is where those 10 staff years may be placed. We understand that there's a proposal that three of them would go to the regions which provide a considerable amount of oversight, the other seven would go to headquarters.

We haven't looked at it in detail, but we question whether an additional 10 resources would be enough to provide the type of oversight, and especially if those resources are placed at headquarters versus in the regions, whether they would provide effective oversight.

I'd also like to mention that the House in recent legislation has I think increased the number of staff that it will be giving UMTA in its 1991 budget, but I don't believe it's been taken up by the Senate yet, so it will probably go into conference.

Senator **Cranston**. Do you have any particular comments or concerns on this point?

Mr. **Diaz**. Well, if I may, Senator, respond briefly to the question. I believe that it would be unfair to say that UMTA does not have adequate documentation for its discretionary program. We believe that the documentation is fully adequate for the following reasons:

First, every program which receives an UMTA grant has previously been reviewed and approved by a metropolitan planning organization, which means there has been State or local regional review of the particular project. The project has been compared against the transit needs of the region and prioritized against other competing projects within the region. There has been an alternatives analysis which has been performed to satisfy the Federal Government, and State, and Federal environmental concerns have all been addressed.

I would also point out that as Mr. Hill states, we have in fact requested additional personnel to provide for third party contract review and for other measures, and we are hopeful that that personnel will be forthcoming as a result of legislation from the House and the Senate.

And further I would just underscore one point which I think is not immaterial here, and that is that that discretionary fund is not in its truest sense a fully discretionary fund. Approximately 40 percent of all section 3 grants are earmarked by the Congress, and they are therefore granted not only as a result of local and/or State review, not only as a result of UMTA alternatives, analysis and documentation, but also after a close review and scrutiny by the Congress of the United States, which has determined that those projects deserve priority.

Senator **Cranston**. It's always difficult to find the appropriate balance between adequate regulatory requirements to insure accountability, versus overly burdensome and unnecessary requirements that become very costly in complying with, and that prevent recipients from providing needed services.

Nick, I'd like to start by addressing this to you; how have the regulatory requirements changed over the past 10 years with regard to oversight and what changes are most troublesome or what present practices are most troublesome and lead to the most vulnerability?

Mr. **Patsaouras**. Senator, I will attempt to answer your question and I will also ask Mr. Peaq who's the general manager of the RTD who helped me.

I have gone through three UMTA administrations, and I have to tell you that the present one is very good.

Senator **Cranston**. Very good?

Mr. **Patsaouras**. Very good, very cooperative, they have an open door, they listen. The last one was a stone wall operation.

There are a few suggestions and I'm referring to the last administration. By the time we applied for the grant to UMTA and by the time we got the approval there was a 16 month delay that was not recognized in the funding. As a result when you read a paper about cost over runs and time delays the major factor in that delay of the Metro Rail is to do with the UMTA grant.

Second, there is a project management oversight on the part of UMTA and sometimes they interfere with the claims procedure and process while the project is under construction that again creates cost over runs.

Third, we have to go for a project through the Environmental Impact Report and we have to do all State and Federal. I believe that the acceptance on the part of the State Environmental Report would suffice and it would save a lot of time.

For example, it takes 2 to 3 years to go through the Federal Environmental Impact Report, and for a project to be 3 years it's a lot of money that I believe is wasted money, you don't get anything for it.

Mr. PEAQ. I would note that during the period of UMTA's administration we have seen an increase in self certification type moves which do reduce the burden on the local transit provider, but in the same period of time as President Patsaouras has noted we have seen the increase in the number of policy directed reviews and competing reviews with the State level.

So a further move toward the use of State processes in substitution for separately mandated Federal processes could resolve many of the time demands that are placed on the local transit agency.

Senator CRANSTON. Sharon, do you have any comments on this point?

Ms. NEELY. I would only add to President Patsaouras' comment, that one of the things that you might want to take a look at on the regulation side is streamlining the alternative analysis process. And we've been discussing this with UMTA staff and there's some folks in the American Public Transit Association industry that are interested in working with UMTA staff to streamline that process.

In L.A. for 1 hour of delay that costs us $100,000 on the Metro Rail project. Anything we can do to streamline that process would greatly reduce the cost.

Senator CRANSTON. Thank you very much.

Mr. Diaz, you stated UMTA's oversight responsibilities are mandated in statute. Do you think these statutory requirements are adequate, and if not, do you have any suggestion for a revision that we should consider?

Mr. DIAZ. Thank you, Senator. We do believe that with recent amendments in the law that it is fully adequate. The Senator, I'm sure, is familiar with the fact that we have recently had favorable legislation which expands the scope for our project management oversight program, which now allows us additional latitude in using those funds to do technical and financial reviews that were outside of our authority before.

That additional new authority we believe will be very helpful in going forward with our oversight review and reform. We believe that that program, which is newly underway within the last year or so, has made major contributions to our effectiveness in this area, and we believe it will pay big dividends to the public in the future.

Senator CRANSTON. John, your testimony made reference to at least two occasions in which GAO identified management problems and possible solutions with regard to UMTA oversight procedures.

In 1985 GAO submitted a report entitled, "UMTA Needs Better Assurance That Their Grantees Comply With Federal Requirements." In 1989 there was a report entitled, "Mass Transit Grants—UMTA Needs To Improve Monitoring Of Local Transit Authority."

First, could you tell me what other studies and recommendations GAO has made in the last 5 years with regard to UMTA oversight?

Mr. HILL. The only other report that we did with regard to UMTA oversight talked about the section 3 discretionary grants and the administrator's ability to make those grants without specific documentation of that decision.

We have not issued any other reports, but the reports that we will be issuing in the middle and the end of next year will certainly deal with UMTA's oversight in a lot more depth.

Senator CRANSTON. What's the status of your audit and will it be done by February of next year when Congress will be reauthorizing UMTA?

Mr. HILL. We will be in a position by February of next year to testify fully on the results of the audit. The audit has basically been divided into four pieces where we're looking at four of the UMTA regions specifically, and then we will do a capping report on all of the regions by the end of next year. But we will be in a position to testify.

Senator CRANSTON. Did you say by the end of next year? That's going to be after the time when we're required to finish our legislative work.

Mr. HILL. Well, that will be the capping report. We'll be issuing individual reports on the regions and we'll be able to speak to overall concerns before the reports are issued.

Senator CRANSTON. I wonder if you and Steve could both describe the effectiveness of the reports that have been made thus far in helping UMTA oversight become more effective, and how UMTA responded to the suggestions in the report.

Mr. DIAZ. Senator, if I may, UMTA, as you know, is not an auditing agency and does not have auditing capacity. In that regard we are very grateful to the good relationship and the fine support we receive from the GAO, which is an auditing agency, and from the Office of the Inspector General, Department of Transportation, which does all auditing for the Department.

Annually we are able to request audits from the Inspector General, and of course from time to time the GAO in response to congressional inquiries does its own. And we believe those are very useful and supportive and necessary functions.

In addition to that, on the procurement front, the 10 new staff positions requested for third party contract review and related functions, of course, are a part of this program. And the PMO, the Project Management Oversight Program, and all of these four features come together to provide the complete UMTA oversight package and it's overlaid on the administrative requirements we have for alternatives analysis, for MPO approval, and the other requirements that we have in our grant process.

I believe that we are moving in a very positive direction, and I believe that the Congress and the administration are coming together on transit policy as to where we should go. Of course, there will always be some differences, but I think that we are beginning to share with the grantees around the country a sense of what is practical, what is needed in order to protect the Federal investment, and what is not needed in terms of standing in the way, if you will, of those who have the responsibility ultimately of delivering the transit service.

And I believe the whole program is getting more cooperative and will get more effective. And I think this era of good feeling that we have among us is very substantially responsible for that fact because we can now in full candor share our problems openly with the Congress, with the grantees, and we believe that flows both ways, or three ways, if you will.

We are right now, as we go into reauthorization—and we hear all the talk here today about intermodalism and other themes sounded strongly in the National Transportation Policy—very optimistic that reauthorization will move us in the correct direction.

And as you know the Department will have its formal proposal shortly.

Senator **Cranston**. Mr. Hill has testified that UMTA failed to properly oversee some projects that received Federal assistance. One explanation was a lack of adequate staffing.

The GAO indicates that UMTA has requested an additional 10 staff for grantee oversight in its 1991 budget.

How adequate do you think that increase would be?

Mr. **Diaz**. That was the best case design by UMTA staff of what in the optimum world they could do to control the matter, and frankly that best case projection is what was adopted and forwarded to the Congress. It was not edited, it was not reduced at all, and both the professional staff and the administration were in full agreement on those figures.

Senator **Cranston**. What do you take into account in this case?

Mr. **Diaz**. The number of people we believe would be required to handle the actual work load. And frankly, Senator, if we want to get into the details of how that work load is constructed I would appreciate the opportunity to provide a supplemental answer.

Senator **Cranston**. Let me ask Nick and Sharon; do either of you sense any staff shortages that lead to any difficulties that you perceive?

Mr. **Patsaouras**. No, as I said, my involvement with UMTA has been good, they have been very responsive. When they're asked to respond they respond in a reasonable time.

That's my personal observation.

Ms. **Neely**. I would concur with Nick's statements. I do concur though that there is a shortage of UMTA staff in region 9, and we've had a very excellent working relationship, however, they're over loaded. Considering the size of the construction program both in L.A. and the Bay Area, they do need additional help.

And in fact one of the comments made today about the oversight issue, in my estimation, and I've been involved with the grants here for 8 years, where we have a problem is the lack of communication and clear understanding between maybe the OIG and UMTA.

An example would be in the spare ratio issue of exactly what is—whether emergency or energy contingency vehicles are in the spare ratio, out of the spare ratio, and then the issue of having adequate staff to follow up on it so that we're not holding up grants for the operator.

So, I do concur that UMTA could use additional staff especially in region 9.

Senator **Cranston**. Let me ask each of you a question analogous to one that I put to the previous panel.

What's the one step you want to make sure we take to improve the situation in the reauthorization bill next year.

Let me start with you, Mr. Hill, and just go down the table.

Mr. **Hill**. One of the issues that seems to have surfaced in the previous panel and that we've talked about at GAO, and I believe has also come out in California's reauthorization proposal, as well as in the administration's national transportation policy is the issue of trying to find someway to structure the program such that we have solutions and approaches to problems that are not necessarily related to a particular mode. So that we look at intermodalism.

And when you look at the structure of the highway program and some of the solutions that the highway program is expected to administer, and then also look at some of the solutions that the mass transit program is trying to find, you certainly find areas of overlap. So that I think that we really should be looking at it as one issue to try to find solutions that are intermodal and that break down some of the barriers.

Mr. **Peaq**. I would say that we need to match up the funding that we can really deliver with the regulatory requirements that are being imposed on the business.

We have both the Clean Air Act, and the Americans with Disabilities Act, which will impose substantial industry costs and we need to look at those requirements in terms of providing funds for satisfying those additional burdens.

Mr. **Patsaouras**. I would also amplify about the bus purchases and grants. The UMTA uses certain flexibility but the Office of the Inspector General does not. It does not relate how the RTD is operating in an urban environment with terrific traffic congestion, environmental quality issues.

And therefore, they penalize us as far as giving us granting. But I want to come back to my first issue about section 9 funding.

You cannot plan, no business can plan a list that they know is their budget, and to have year-after-year depending on the administration's policy or the OMB to depend on operating funds, that has to change. I think it should be a pool that there can be strictly by formula, not because Mr. Darman decided to cut money to make up for something else.

Mr. **Diaz**. Senator, I would have to sound the same bell that Mr. Hill did, intermodalism. Localities must have the flexibility to determine what they need in their own areas and as you know and I think we all know, the choices that might be made here in Los Angeles or in California as a whole might be different than those made in other parts of the country, but we have an urgent need to press in this State, clearly with an emphasis that is not traditional.

And I think that each area needs to be given that opportunity. The intermodal theme in the NTP speaks directly to that in response to what the Secretary heard around the country from the public and from advocacy groups and from transit operators, and from the industry at large.

And I think that those are the same sounds you've heard today in this hearing and I suspect that we'll hear tomorrow in San Jose, it's where we need to go.

Ms. **MARLER**. Senator, as a representative of the regional office I'd just like to emphasize the remarks that Mr. Diaz made that the regional office believes it's trying to develop and foster a cooperative relationship with our grantees.

And we understand that they have issues that they would like to bring to us, and we would like to tell them the door is open. We would like to hear from them, and to the extent we're able, we would like to address those issues with them.

Senator **CRANSTON**. Thank you very much.

Ms. **NEELY**. Mr. Senator, I guess the most important thing from the L.A. area is the recognition that the Federal Government has an important role in setting the transportation policy for the next 10 years, and to establish clear goals in the areas of reliance on foreign oil, accessibility, congestion, mobility, clean air, and to provide the resources as a partner in this issue with the local funding sources and State sources. We must have a partnership.

Senator **CRANSTON**. One last point, we have a couple of minutes then we've got to quit.

Is there any question I didn't ask I should have asked, or is there any other point we didn't manage to cover that any of you would like to touch upon briefly?

Mr. **PATSAOURAS**. I would like, Senator, it has to do with the tax code. And they address as far as parking.

An employer is able to subsidize parking, insurance, gasoline and so on, but we can only subsidize 15 percent of a transit pass.

It's in the Senate right now by Senator DeMarlo, which would come for that subsidy, and if an employer gives $16 to the employee the employee has to claim the $16 as income.

So, it's very important, it's on the docket as I understand, it failed years ago, but it's important.

Senator **CRANSTON**. I agree with you and we'll do our best to do exactly that. Any other final statements?

Ms. **NEELY**. Well, I was just reminded by my kind staff that one of the things that we just want to emphasize is your continued support of the Metro Rail funding and the reauthorization.

I alluded to that earlier in my testimony, but I want to emphasize again how much we look forward to your support in Congress in funding these important projects for the L.A. Basin.

Senator **CRANSTON**. Thank you very much.

I think we'll have to conclude at this point. I thank you all very, very much for your very constructive and helpful testimony and for the work that you are carrying on and will carry on.

We will submit written questions, so please respond within 2 weeks.

We're adjourned.

[Proceedings in the above-entitled matter was concluded.]

[Prepared statements of witnesses follow:]

TESTIMONY
OF
DAVID H. ROPER
DEPUTY DISTRICT DIRECTOR - OPERATIONS
CALIFORNIA DEPARTMENT OF TRANSPORTATION
BEFORE
THE SENATE SUBCOMMITTEE
ON
HOUSING AND URBAN AFFAIRS

AUGUST 7, 1990
LOS ANGELES, CALIFORNIA

GOOD MORNING, MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE. MY NAME IS DAVID ROPER, DEPUTY DISTRICT DIRECTOR, CALTRANS, IN THE LOS ANGELES DISTRICT. IT IS A PLEASURE TO BE WITH YOU THIS MORNING TO GIVE YOU INFORMATION REGARDING A PROJECT THAT IMPLEMENTS AN IDEA THAT'S BEEN TALKED ABOUT FOR A LONG TIME. IT'S A PROJECT DESIGNED TO REDUCE CONGESTION AND IMPROVE THE MOVEMENT OF BOTH PEOPLE AND GOODS ALONG A METROPOLITAN TRANSPORTATION CORRIDOR THROUGH MAKING BETTER USE OF OUR EXISTING STREET AND FREEWAY SYSTEMS WITHIN THAT CORRIDOR. IT'S THE SMART CORRIDOR DEMONSTRATION PROJECT IN THE SANTA MONICA FREEWAY CORRIDOR, BEING JOINTLY CARRIED OUT BY CALTRANS, THE CITY OF LOS ANGELES, THE CALIFORNIA HIGHWAY PATROL, FHWA, AND THE LOS ANGELES COUNTY TRANSPORTATION COMMISSION.

THE ALL TOO COMMON PROBLEM THAT WE'RE ATTEMPTING TO ADDRESS IS THAT, AS MOTORISTS, WE TEND TO OVERLOAD ONE FACILITY THAT WE VIEW AS THE BEST FOR OUR TRIP AND LEAVE OTHER PARALLEL ROUTES SIGNIFICANTLY UNDERUTILIZED. THE RESULT IS THAT ONE FACILITY IS JAMMED WITH TRAFFIC WHILE NEARBY PARALLEL ROUTES ARE "EMPTY".

THE CONCEPT OF SMART CORRIDORS CALLS FOR BALANCING TRAFFIC DEMANDS TO ALL AVAILABLE FACILITIES, BOTH STREETS AND FREEWAYS, WITHIN THE CORRIDOR. IN THIS WAY, THE HEAVY CONGESTION THAT RESULTS FROM OVERLOADING ONE OF THE FACILITIES CAN BE EASED. A VARIETY OF TRAFFIC MANAGEMENT TECHNIQUES AND SYSTEMS ARE USED TO ENCOURAGE MOTORISTS TO DIVERT AND SPREAD OUT THE TRAFFIC LOAD -- SURVEILLANCE AND DETECTION SYSTEMS, MOTORIST INFORMATION SYSTEMS, RAMP METERING, AND AUTOMATED SIGNAL CONTROL SYSTEMS.

THE BACKBONE OF A SMART CORRIDOR PROJECT IS GETTING REAL-TIME TRAFFIC FLOW INFORMATION TO THE MOTORIST, OR SOON-TO-BE MOTORIST, IN ORDER THAT THE LEAST CONGESTED ROUTE CAN BE SELECTED FOR THE TRIP.

ACCURATE, UP-TO-THE-MINUTE INFORMATION MUST FIRST BE COLLECTED, AND THEN DISTRIBUTED IN A VARIETY OF WAYS TO THOSE MOTORISTS ALREADY IN THE VEHICLE AND UNDERWAY AS WELL AS THOSE AT HOME OR AT WORK WHO ARE ABOUT TO BEGIN A TRIP. MESSAGE SIGNS AND OTHER COMMUNICATION SYSTEMS CAN BE ACTIVATED TO FURTHER ENCOURAGE DIVERSION; TIMING OF RAMP METERS AND TRAFFIC SIGNALS CAN BE MODIFIED TO FURTHER ENCOURAGE AND ACCOMMODATE THE DIVERSION.

IN THE SANTA MONICA FREEWAY CORRIDOR PROJECT, THE TRAFFIC OPERATION CENTERS OF CALTRANS AND THE CITY OF LOS ANGELES WILL BE LINKED TOGETHER AND TRAFFIC INFORMATION WILL BE SHARED TO FORM A COMPREHENSIVE PICTURE OF CONGESTION CONDITIONS IN THE CORRIDOR. THAT INFORMATION WILL THEN BE PROVIDED TO COMMUTERS THROUGH CHANGEABLE MESSAGE SIGNS LOCATED ON THE FREEWAY AND ON SURFACE STREETS, THROUGH THE TRAFFIC REPORTS ON COMMERICAL RADIO AND TELEVISION STATIONS, THROUGH THE USE OF LOW-POWERED HIGHWAY ADVISORY RADIO UNITS PLACED ALONG THE FREEWAY AND THROUGH SPECIAL IN-VEHICLE ELECTRONIC MAPS BEING PROVIDED IN A LIMITED NUMBER OF VEHICLES UNDER THE PATHFINDER PROJECT.

IN ADDITION, A VARIETY OF TRAFFIC MANAGEMENT TECHNIQUES AND SYSTEMS WILL BE APPLIED IN THE CORRIDOR -- RAMP METERING, AUTOMATED TRAFFIC SIGNAL SYSTEMS, CLOSED CIRCUIT TELEVISION, MOTORIST SERVICE PATROLS, INCIDENT MANAGEMENT TEAMS -- TO HELP MINIMIZE CONGESTION AND KEEP TRAFFIC MOVING.

THE TOTAL COST OF THE PROJECT IS ABOUT $50 MILLION. THE CONCEPTUAL DESIGN HAS BEEN COMPLETED; FINAL SYSTEM DESIGN IS UNDERWAY. SOME ELEMENTS OF THE TOTAL SYSTEM ARE ALREADY IN PLACE AND OPERATING. IT IS EXPECTED THAT THE PROJECT WILL BE FULLY OPERATIONAL IN EARLY 1993.

CALTRANS THINKS THAT APPLICATION OF THE PRINCIPLES OF THE SMART CORRIDOR MAKES A LOT OF SENSE. IT MAKES MUCH MORE EFFICIENT USE OF THE FREEWAY AND SURFACE STREETS THAT EXIST IN A CORRIDOR, FACILITIES PAID FOR BY THE PUBLIC. IT CALLS FOR A PARTNERSHIP APPROACH BETWEEN VARIOUS PUBLIC AGENCIES, THE PRIVATE SECTOR AND WITH THE PUBLIC TO SHARE INFORMATION AND WHICH ALLOWS MOTORISTS TO MAKE DECISIONS ON WHAT TRAVEL ROUTE IS BEST FOR THEM. IN SOME LIMITED APPLICATIONS, IT HAS SHOWN GREAT POTENTIAL TOWARD EASING CONGESTION AND PROVIDING IMPROVED MOBILITY IN URBAN FREEWAY CORRIDORS. WE'RE LOOKING FORWARD TO FULL IMPLEMENTATION AND OPERATION OF THE SANTA MONICA PROJECT.

MR CHAIRMAN, THANK YOU AGAIN FOR GIVING CALTRANS THE OPPORTUNITY TO PRESENT INFORMATION ON THE SMART CORRIDOR PROJECT. I WOULD BE PLEASED TO RESPOND TO ANY QUESTIONS YOU OR OTHER MEMBERS OF THE COMMITTEE MAY HAVE.

Congressional Hearing Testimony
Subcommittee on Housing and Urban Affairs
August 7, 1990
Kathleen Imanishi
Human Resources Manager/Employee Transportation Coordinator

Good Morning, Everyone.

Good Morning, Senator Cranston. I'd like to thank you for inviting me to speak about KCET's Rideshare Program, and giving me the opportunity to share my thoughts about the future of ride sharing in Southern California.

Our mandate from the South Coast Air Quality Management District was essentially to create a program that provides INCENTIVES for employees to rideshare. We had a special challenge in implementing a program at KCET because we are a relatively small non-profit organization. This meant that we had to meet our goals while keeping our expenditures to a minimum.

I'm proud to say that after only two months of operation, 24% of our employees are now regularly ridesharing. I feel that this success can be attributed to three factors: the specific INCENTIVES that we offer, the WILLINGNESS OF OUR EMPLOYEES to become involved, and the ONE ON ONE CONTACT which is the backbone of our efforts.

I'd like to begin with incentives. Similar to other companies we offer:

- FREE PARKING
- an EMERGENCY RIDE HOME provision
- RIDESHARE NETWORKING
- FLEX HOURS
- TELECOMMUTING
- and the establishment of a RIDESHARE TASK FORCE in which selected KCET ridesharers meet quarterly to discuss ways to improve the system.

These incentives, coupled with a KICK-OFF RECEPTION for the program, helped to generate interest among our staff.

However, our most effective incentive has been to offer TWO EXTRA VACATION DAYS A YEAR for employees who rideshare an average of three out of five days a week. You'll find a detailed description of this INCENTIVE PROGRAM along with my written statement.

The VACATION DAYS idea actually arose from our inability to offer significant cash incentives. And once the entire incentive program was announced, I found that the promise of two additional paid vacation days was in fact the biggest draw of all the incentives. Clearly, time off from work was at least as valuable as giveaways or cash.

I think this "vacation day" incentive could be a valuable and effective part of every company's rideshare plan.

I've also made some additional observations which I think will be helpful to your inquiry. One is the TRICKLE-DOWN effect of the rideshare program in our employees' lives. Last week one of our TV directors told me that having biked to work three days a week to meet the minimum ride share requirements, biking has become a habit. Not only did she start biking five days a week to work, but she even started to feel guilty about driving her car on the weekends. As a matter of fact she now makes a list for errands that require a car, and waits until she can do them all at one time.

Once they get involved, people not only develop a new awareness of ridesharing, but it quickly becomes a familiar part of their daily lives. And once it's familiar, it ceases to be intimidating.

Now...What can the Government do to help us in the process of ridesharing.

In the larger context, I see the need for a more comprehensive involvement from agencies like Commuter Transportation Services. At the present time I receive a Master List of people who work in the vicinity of KCET and are interested in ridesharing. However, the list is provided only once a year. If I were provided with a MONTHLY UPDATE of this list, I could take fuller advantage of potential ridesharers in our area, and keep current as people move, come into the area, or change jobs.

At a company level, I feel strongly that the government should help out with FUNDING -- particularly with smaller companies. MONEY FROM THE GOVERNMENT would allow smaller companies or non-profit organizations like mine to more fully implement far-reaching rideshare programs.

For instance, at KCET, we simply don't have the money to buy a van for vanpooling -- though we certainly have employees willing to use it. If we had a shuttle van or company car available at lunch time for employees to run errands or attend off-site meetings, I know we could attract even more people to the program.

In conclusion, I believe that KCET's Rideshare Program clearly demonstrates how government mandated programs can play an important role in resolving the critical pollution and congestion problems that we face in Southern California. These are two of the most pressing issues of our times and our community, and your increased commitment to solving these problems is essential not only to our quality of life, but to our survival.

Thank you.

KCET'S TRIP REDUCTION PLAN

INCENTIVE PROGRAM

Additional Vacation Days for Ridesharers

Employees who carpool, vanpool, walk, bicycle, take the bus, telecommute or are dropped off at work at least 3 times per week will earn a vacation day for every 6 month period (minimum of 72 days of ridesharing per 6 months).

Free Parking

Employees who have one or more adult passengers in their vehicle for more than 50% of their ride from home to work and who carpool 3 days or more per week qualify for free parking.

Emergency Ride Home

Employees who rideshare will be given a ride home in the event of an emergency at home or if the employee becomes too ill to remain at work and has no other way home. Definition of an emergency will be at the discretion of the Human Resources Department. In cases of emergency, employee should contact the Employee Transportation Coodinator and a cab company will be contacted to arrange a ride for employee.

Rideshare Networking

The Employee Transportation Coordinator will contact prospective ridesharers who live in the same areas and assist them with making rideshare arrangements. As new employees are hired, the ETC will assist them with finding other employees who live in their same area and rideshare or are interested in ridesharing.

With the information provided by Commuter Computer, ETC will assist employees by giving them names of interested ridesharers outside of KCET when requested.

In cooperation with ABC which is located approximately 6 blocks away, KCET's ETC will contact ABC's ETC every 3 months to match up potential ridesharers at both companies and arrange for meetings as necessary.

KCET Rideshare T-Shirt Contest

KCET will hold a contest for employees to design a slogan or logo for a KCET Ridesharer T-shirt. T-shirts with the winning design will be given to all employees who rideshare on a regular basis.

Contest rules will be announced in August 1990. Rideshare Task Force will select a design and the winner will receive $50 in cash.

Flex Hours

Upon approval by supervisors, ridesharing employees can adjust their start time for work within 1/2 to 2 hours of existing start time in order to facilitate ridesharing. The end time will be adjusted accordingly so employees will continue to work a minimum of 7 1/2 hours daily.

Telecommuting

Supervisor will identify employees who are qualified to work at home based on the work they do, their performance level and their personal desire to telecommute from home.

At the discretion of KCET, employees who are qualified to telecommute will do so on a regular basis for 6 months. After 6 months, an evaluation will be made and supervisor will determine whether or not employee will continue to telecommute on a regular basis.

If additional office equipment is needed, the supervisor will have to determine who is responsible for purchase of equipment and cost of phone use, if applicable. ETC can assist with this cost breakdown if necessary.

Rideshare Task Force

Employees who rideshare will be selected to be a member of the KCET Rideshare Task Force (RTF). There will be quarterly lunch meetings for members to meet and discuss current Average Vehicle Ridership (ratio of employees to cars), success and failure of the station's Trip Reduction Plan and ways to improve it. Each member will be responsible for helping to promote the plan and for encouraging fellow co-workers to rideshare. As a goal, each member will be responsible for recruiting a new ridesharer each quarter.

TESTIMONY OF REED L. ROYALTY
CHAIRMAN, ORANGE COUNTY TRANSPORTATION COALITION

to the

SENATE SUBCOMMITTEE ON HOUSING AND URBAN AFFAIRS

LOS ANGELES
AUGUST 7, 1990

Thank you, Senator, for allowing me to speak on behalf of the Orange County Transportation Coalition. I'm area vice president of Pacific Bell and chairman of the coalition, an organization made up of the county's 17 largest private employers.

What I want to do today is not to discuss another transportation problem but to discuss a solution. It's not a complete solution to all the transportation woes but one that works. I'm a telecommuter and it works for me.

Telecommuting is the use of telecommunications technology to transport information rather than people to and from the workplace on a part-time or full-time basis. It substitutes an electronic highway for a congested, concrete one.

If just 5% of the commuters in Orange County telecommuted one day a week, there would be about 90 fewer TONS of pollutants in the air that week. They would save more than 180,000 GALLONS of gas in a week.

Since more than 50% of Orange County's work force is in the information business, there's a tremendous potential for telecommuters and we're helping several companies get their start in telecommuting.

Pacific Bell has more than 150 telecommuters reporting to one billing unit in Anaheim and we have more than 2,000 statewide, in a variety of jobs. Even our vice president of Business Marketing for Southern California telecommutes at least one day a week.

Telecommuters include lawyers, realtors, receptionists, accountants, journalists, clerks, bookkeepers, marketing personnel and lots more.

Telecommuting is a flexible application that can be engineered to whatever specifications that would be appropriate. It can be a solution to business and even personal problems.

Telecommuting can be as simple as using a phone or as complex as using computers, modems, fax machines, printers and other state-of-the-art equipment.

California Assembly Bill 3069, introduced by Assemblyman Clute and co-authored by Assemblyman Kelley and Senator Presley, would establish a one-year pilot telecommuting program as an alternative to commuting between home and work between Riverside and Orange. The program would be a partnership between the state, the Riverside County Transportation Commission and private industry.

The initial set-up costs for a telecommuter can range from a few hundred to several thousand dollars, depending on equipment.

Telecommuting can cost less than $50 a month. The cost of running a personal computer is two to three cents per hour. Data can be sent over a residence line ($8.35 a month flat rate) or a data access line ($22.50 a month).

Telecommuting is very easy to implement. The main obstacle is changing the philosophy of managers who like to see their people daily. But most telecommuting trials have shown a productivity increase of at least 20%, largely because there just simply aren't those interruptions.

There is a very strong commitment on the part of the employee who is engaged in this kind of effort to make sure he or she can sustain this perk.

The key to a telecommuting program is to be very clear about expectations. What do I expect of you? What do I expect you to produce? When do I expect you to be available?

Last year's Northern California earthquake put the spotlight on additional values of telecommuting. Telecommuting was the only way many businesses were able to work effectively. We told a lot of employees to work from home or to report to a nearby office, find a telephone and a desk and do their work. It worked extremely well.

In light of earthquakes, the South Coast Air Quality Management District's Regulation XV, and the proven value of telecommuting, every business needs to look at telecommuting seriously. Every business needs to create a telecommunications policy.

And, Senator, we could do a lot more to ease congestion and pollution if Congress helped us lift restrictions that prohibit regional phone companies from providing Information Services.

Instead of driving around looking for places and things, millions of people in France and 10 other countries use electronic yellow pages. They can even get detailed maps so they can travel more efficiently. Please help make these things possible in the United States by taking telecommunications policy back into the hands of Congress. Thank you.

TESTIMONY OF THE

ORANGE COUNTY TRANSPORTATION COMMISSION

BEFORE THE

UNITED STATES SENATE SUBCOMMITTEE
ON
HOUSING AND URBAN AFFAIRS

AUGUST 7, 1990
LOS ANGELES, CALIFORNIA

MY NAME IS DANA W. REED AND I AM THE CHAIRMAN OF THE ORANGE COUNTY TRANSPORTATION COMMISSION.

I AM VERY PLEASED TO PROVIDE THIS TESTIMONY FOR THE SENATE'S SUBCOMMITTEE HEARING ON MASS TRANSPORTATION ISSUES. A FEW YEARS AGO ORANGE COUNTY PROBABLY WOULD NOT HAVE HAD MUCH TO CONTRIBUTE, BUT BOTH THE CITIZENS AND TRANSPORTATION OFFICIALS LIKE MYSELF HAVE COME TO REALIZE THAT RAIL TRANSPORTATION IS AN EFFECTIVE SOLUTION TO OUR CONGESTION PROBLEM.

ORANGE COUNTY WAS THE FIRST AGENCY IN SOUTHERN CALIFORNIA TO INTRODUCE RAIL PASSENGER SERVICE DESIGNED SPECIFICALLY FOR THE COMMUTING POPULATION. GRANTED WE ONLY HAVE ONE ROUND TRIP EACH WEEKDAY BUT THAT WAS A MAJOR ACCOMPLISHMENT FOR A REGION THAT SUPPOSEDLY HAS A LOVE AFFAIR WITH BMW'S, JEEPS AND ALMOST ANYTHING THAT RUNS ON FOUR TIRES.

HOWEVER, WE WERE FORCED TO LOOK FOR ALTERNATIVE WAYS TO MOVE PEOPLE UP AND DOWN THE I-5 CORRIDOR. AS YOU PROBABLY KNOW, WE ARE IN THE MIDST OF A MASSIVE WIDENING AND RECONSTRUCTION PROJECT ALONG INTERSTATE 5. WITH TRANSIT CAPACITY REDUCED ON OUR MAJOR THOROUGHFARE, COMMUTER RAIL ROSE TO THE TOP OF THE SOLUTION MIX.

WITHIN ONE YEAR OF DECIDING TRAIN TRAVEL WAS A WISE COMMUTER OPTION, WE CELEBRATED THE DEBUT OF COMMUTER RAIL SERVICE BETWEEN SAN JUAN CAPISTRANO IN SOUTH ORANGE COUNTY, AND LOS ANGELES UNION PASSENGER TERMINAL IN DOWNTOWN LOS ANGELES.

DEVELOPING THIS SERVICE FROM AN IDEA TO AN OPERATION PRESENTED MANY CHALLENGES. LET ME SHARE JUST A FEW OF THEM WITH YOU.

INITIALLY WE THOUGHT WE'D APPROACH AMTRAK TO ADD ONE MORE ROUND TRIP TO ITS INTERCITY SCHEDULE. AFTER ALL, THE TWO MORNING TRAINS TRAVELING FROM SAN DIEGO TO LOS ANGELES ARE PRIMARILY CARRYING COMMUTERS. EVEN THOUGH IT'S CALLED AN INTERCITY SERVICE, EVERYONE KNOWS PEOPLE USE IT TO GET TO WORK.

AMTRAK EXPRESSED INTEREST BUT QUICKLY POINTED OUT SANTA FE RAILWAY WOULD HAVE TO BLESS THE CONCEPT. DISCUSSIONS WITH SANTA FE WERE ENCOURAGING, ESPECIALLY SINCE THEY HAD JUST ANNOUNCED THEIR DESIRE TO SELL THE VERY RIGHT-OF-WAY WE WANTED TO RUN SERVICE ON. EVENTUALLY SANTA FE GAVE ITS APPROVAL AND THE STATE DEPARTMENT OF TRANSPORTATION SUPPORTED OUR TRAFFIC MITIGATION STRATEGY.

ARRANGEMENTS WERE MADE WITH AMTRAK TO RUN A NEW WEEKDAY MORNING TRAIN THAT WOULD RELIABLY GET PEOPLE INTO LOS ANGELES BEFORE THE 8:00 A.M. START OF BUSINESS. THE

EVENING TRAIN WOULD LEAVE LOS ANGELES SOMEWHERE BETWEEN 5:30 AND 5:45 P.M.

ORANGE COUNTY WAS FORTUNATE TO JUGGLE A ROUND TRIP SCHEDULE IN THE MIDST OF A BUSY INTERCITY SERVICE ON A CROWDED SINGLE TRACK CORRIDOR. WE WERE EQUALLY LUCKY IN BEING ABLE TO USE EXISTING AMTRAK EQUIPMENT SINCE OUR FUNDS WERE LIMITED TO WHAT WE COULD BORROW FROM RESOURCES TYPICALLY ALLOCATED TO THE ORANGE COUNTY TRANSIT DISTRICT.

WE COMMITTED $1.8 MILLION FOR AMTRAK'S SERVICES AND EQUIPMENT AND $170,800 TO SANTA FE TO COVER THE RAILROAD'S RELATED EXPENSES.

ON APRIL 30, 1990 AT 6:00 A.M. THE ORANGE COUNTY TRANSPORTATION COMMISSION'S COMMUTER RAIL WAS INTRODUCED TO SOUTHERN CALIFORNIA. I MIGHT ADD THE DAY

WAS PERFECT CONSIDERING THE TRAIN PULLED INTO LOS ANGELES TEN MINUTES EARLY.

SINCE THEN WE'VE REPLACED AMTRAK'S CARS WITH DOUBLE DECK COMMUTER RAIL EQUIPMENT LEASED FROM THE STATE FOR ONLY $1 A YEAR, SAVING US ABOUT $200,000. RIDERSHIP IS GRADUALLY INCREASING FROM THE 140 AVERAGED IN MAY ON THE NORTHBOUND TRAIN TO AN ALL TIME HIGH OF 224 LAST WEEK. WE WON'T BE HAPPY UNTIL RIDERSHIP REACHES AT LEAST 350.

FOR ORANGE COUNTY THIS IS ONLY A BEGINNING. ALTHOUGH ITS 20 PERCENT LESS THAT AMTRAK'S DISCOUNTED TICKETS, OUR FARES ARE STILL TOO EXPENSIVE. IT COSTS $280.00 A MONTH TO COMMUTE THE 60 MILES BETWEEN SAN JUAN CAPRISTRANO AND LOS ANGELES. FARES MUST DECREASE AND THE SERVICE FREQUENCY MUST INCREASE.

WE ARE CLOSE TO COMPLETING A STUDY AND ACTION PLAN FOR

IMPLEMENTING A FULL SCALE COMMUTER RAIL OPERATION BETWEEN OCEANSIDE IN SAN DIEGO COUNTY AND DOWNTOWN LOS ANGELES. THE CHALLENGE IS TO MAKE THE SERVICE WORK FOR THE ORANGE COUNTY COMMUTERS AND YET PARTICIPATE IN AN EFFORT TO PROVIDE A REGIONAL TRANSIT SYSTEM.

WE'VE LEARNED A LOT FROM THE LIMITED SERVICE ALREADY IMPLEMENTED. FOR CERTAIN WE APPRECIATE THE PARTNERSHIP OF AMTRAK, SANTA FE, CALTRANS AND MANY LOCAL AGENCIES FOR WITHOUT THEIR COOPERATION OUR COMMUTER TRAIN WOULD NOT HAVE HAPPENED. EACH DAY WE RELY ON AMTRAK TO PROVIDE OUR COMMUTERS THE KIND OF SERVICE THAT WILL ENCOURAGE LESS AUTOMOBILE TRAFFIC AND MORE MASS TRANSPORTATION VIA RAIL.

WE ARE ALSO COUNTING ON THE UNITED STATES SENATE TO SUPPORT OUR EFFORTS IN PROMOTING RAIL PASSENGER TRANSPORTATION. YOUR POLICIES AND FUNDING DECISIONS WILL

DECIDE HOW EFFECTIVELY WE CAN DEAL WITH THE GROWING TRAFFIC CONGESTION PROBLEMS FACING MAJOR METROPOLITAN AREAS. RAIL HAS PROVEN TO BE ONE OF THE SOLUTIONS WHICH DEMANDS MORE FEDERAL RESOURCES.

United States General Accounting Office

GAO

Testimony

For Release
On Delivery
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Tuesday,
August 7, 1990

UMTA Project Oversight and Mass Transit Issues

Statement of
John W. Hill, Jr., Associate Director
Resources, Community, and Economic Development Division

Before the
Subcommittee on Housing and Urban Affairs
Committee on Banking, Housing, and Urban Affairs
United States Senate
In Los Angeles, California--August 7, 1990
In San Jose, California--August 8, 1990

GAO Form 160 (12/87)

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss our work assessing local transit authorities' management of the Department of Transportation's (DOT) Urban Mass Transportation Administration (UMTA) grants and how well UMTA is overseeing active grants totaling about $33 billion nationwide as of December 31, 1989. These grants have been awarded to about 700 state and local grantees to help fund over 4,400 mass transit projects. During the 1980s, UMTA limited its oversight of grantees by allowing grantees to certify that they would properly manage the grants in accordance with grant conditions and federal requirements.

In summary, our prior and current work to date as well as that of DOT's Office of Inspector General (OIG) has shown that federal mass transit grant programs are at high-risk for mismanagement because:

-- Grantees, in some cases, were not using grant funds for project purposes or according to federal requirements even though grantees certified that they would properly manage federal funds. Our work at two grantees and an analysis of a limited number (25) of DOT OIG audit reports indicated that UMTA grantees questionably used over $100 million of grant funds.

-- UMTA's oversight mechanisms may not be effective in detecting grantees noncompliance with grant conditions or federal requirements. Our prior reports and current work indicate that this occurred because UMTA's oversight tools were not effectively or thoroughly used. DOT has recognized that UMTA has a material weakness with the oversight of its grant programs.

Our testimony will also include a discussion of UMTA grants in California, Los Angeles area mass transit projects, and traffic congestion. Further, we will offer issues for Subcommittee consideration during its deliberations of UMTA's reauthorization.

Now I would like to provide a brief background on UMTA's grant programs and its management and oversight of federal mass transit grants.

BACKGROUND

Under the Urban Mass Transportation Act of 1964, as amended, UMTA is authorized to provide assistance for developing and operating mass transportation systems through grants to state and local entities--generally transit authorities--the grantees. UMTA provides grants primarily through two programs--the Section 3 Discretionary Grant program and the Section 9 Formula Grant program.[1] Funds from both programs are used to construct new transit projects, such as light rail systems; refurbish existing rail systems; or purchase buses. In addition, formula grant funds are used to support the operation of mass transit systems.

Over half of the discretionary grants are earmarked by the Congress for specific mass transit projects; the remainder are selected and awarded by UMTA's Administrator. Formula grants, as the name suggests, are apportioned among urban areas by a statutory formula based on population data and transit service and ridership statistics. Depending upon the type of grant, grantees contribute matching funds that usually range from 20 to 50 percent of the net project cost. UMTA currently oversees over $33 billion in active grants nationwide. During fiscal years 1986 through 1990, UMTA funding will provide am estimated $13.6 billion in section 3 and 9 grants, or about $2.7 billion annually (see fig. 1).

UMTA, as the agency that reviews and approves mass transit grants, is responsible for ensuring that grantees are complying with the various requirements stipulated in the Urban Mass Transportation Act and in uniform grant regulations that apply governmentwide. The uniform grant regulations include, among other things, federal purchasing and contracting standards for recipients of federal funds. In lieu of more direct oversight to ensure compliance, UMTA relies on grantees' certifying that they--the grantees--will comply with all applicable federal requirements. To supplement self-certification and oversee grantees' compliance, UMTA's regional offices have a number of monitoring tools including grantee financial and progress reports, site visits, annual audits, and triennial reviews (see fig. 2).

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[1] In addition, UMTA administers several smaller grant programs for efforts such as mass transit planning, designing and developing mass transit for the handicapped and elderly, and supporting mass transit research.

The UMTA work that we have underway focuses on determining the extent of grantees' noncompliance and the reasons for UMTA's oversight weaknesses. Reviews have started or will soon start in UMTA Regions II (New York City), III (Philadelphia), V (Chicago), and IX (San Francisco).

I would now like to discuss our preliminary assessment of grantees' management of grant funds.

GRANTEES' MANAGEMENT OF GRANT FUNDS

Our work at 2 grantees and analysis of 25 OIG audit reports identified grantees' questionable use of over $100 million in grant funds. This work showed that grantees had not always complied with grant conditions and federal requirements even though they certified that they had internal management control systems in place to ensure such compliance (see fig. 3). Following are a few examples of these findings:

-- The OIG reported that one UMTA grantee had been improperly charging indirect, services, handling, and material costs to UMTA projects since 1974. This resulted in an estimated $17.9 million in overcharges to UMTA grants even though the OIG had repeatedly brought this problem to the attention of the grantee and UMTA. Neither UMTA nor the grantee has, as yet, corrected the problem.

-- According to another OIG report, a grantee had included land acquisition and construction claims of $6.3 million that were not in the grant agreement and its procedures for obtaining a $29.5 million grant were questioned. The transit agency reimbursed UMTA $6.3 million for the questionably used funds.

-- We and the OIG determined that another grantee may have used UMTA-funded inventory on non-grant projects. The grantee consequently may have spent about $4 million for unnecessary purchases. UMTA is negotiating with the grantee to recover unallowable costs.

-- An OIG survey of grant close-out practices in one UMTA region disclosed that grantees had not taken sufficient action to close out grants at project completion. Timely grant close-outs are particularly important because unused funds that should be returned to UMTA are not available for other approved projects. We found indications that grantee delays in initiating grant closeouts may be a problem in two other UMTA regions. UMTA has also indicated that grantee close-outs may be a problem nationwide.

I would now like to focus on UMTA's oversight of federal mass transit grantees.

UMTA OVERSIGHT OF GRANTEES

In 1985, we reported that UMTA needed better assurances that grantees complied with federal requirements.[2] We also supported UMTA's use of triennial reviews that were mandated by the Surface Transportation Assistance Act of 1982. Although at the time of our work, UMTA could not provide us information on the focus of the reviews or how they would be conducted, we believed that triennial reviews, if properly implemented, would afford UMTA an opportunity to supplement their existing oversight mechanisms for ensuring grantees' compliance with federal requirements. However, the triennial reviews do not appear to have been properly implemented.

In March 1989, we reported on UMTA's oversight of the Southeastern Pennsylvania Transportation Authority's (SEPTA) procurement activities.[3] Major procurement problems had been identified in a 1987 UMTA-funded independent procurement review. Our review was directed toward determining why UMTA's own oversight tools had failed to detect these problems.

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[2] UMTA Needs Better Assurance That Grantees Comply With Selected Federal Requirements (GAO/RCED-85-26, Feb. 19, 1985).

Our report disclosed that UMTA's triennial review of SEPTA did not include a detailed procurement assessment, yet indicated that SEPTA had complied with procurement requirements. Further, single annual audits performed by public accounting firms did not include an evaluation of SEPTA's compliance with federal procurement requirements. We concluded that UMTA's monitoring procedures were inadequate to detect the weaknesses in SEPTA's procurement system and made several recommendations to the Secretary of Transportation to better focus UMTA's monitoring tools to detect procurement deficiencies.

In addition, UMTA requires grantees to submit quarterly financial and progress reports. However, at one UMTA region we found that reports submitted by some grantees either did not contain enough information to be used as a monitoring tool or UMTA did not use them for this purpose. The acting UMTA regional manager told us that these reports did not contain the information needed to detect grantee problems.

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[3] Mass Transit Grants: UMTA Needs to Improve Procurement Monitoring at Local Transit Authority (GAO/RCED-89-94, Mar. 31, 1989).

Based upon this work and that of the OIG, DOT identified UMTA's oversight of grantees as a material internal control weakness in its 1989 report to the President required by the Federal Managers' Financial Integrity Act of 1982, as amended. One reason UMTA cited for its oversight problems is its ever-growing workload and shrinking staff. The report states that "In order to improve project oversight, additional staffing is needed." To correct this management control weakness, the report states that "UMTA will require additional resources in both FY 1991 and 1992."

In its description of the problem, the report states that "The number of grants as well as the dollar amount of UMTA's grant program has increased. Currently, [UMTA grants management staff are carrying] double the case load of the early 1980's." In its 1991 budget, UMTA requested an additional 10 staff for grantee oversight.

Since we are in California, I thought it would be useful to provide some background information on UMTA grants for California mass transit projects and projects that are being planned and constructed in the Los Angeles area.

LOS ANGELES AREA MASS TRANSIT PROJECTS

As of December 31, 1989, UMTA was overseeing about $3.6 billion in active grants to California grantees. This represents about 11 percent of the active UMTA grants nationwide (see fig. 4). The Los Angeles/Long Beach metropolitan area grantees received about $2 billion, or about 56 percent of the then active grants in California.

UMTA awarded the largest active California grants to the Southern California Rapid Transit District and the Los Angeles County Transportation Commission for constructing the first two segments of Metro Rail. These two segments are expected to cost about $2.83 billion. Of this amount, UMTA has committed $1.36 billion, about 48 percent of the cost. The Commission is seeking $688 million from UMTA for the third Metro Rail segment, which is expected to cost $1.09 billion.

Although Los Angeles area grantees receive significant UMTA funding, these funds do not represent the major source of their mass transit funding. For example, the Los Angeles County Transportation Commission plans work on 16 mass transit projects during fiscal years 1991 through 1997, at a cost of $7.1 billion. Of this amount, the Commission expects to receive federal funding of $2.1 billion for three Metro Rail projects, provided federal funds are available. The Commission expects the remaining 13 projects to cost about $3.2 billion and be entirely financed by state and local funds. The recently completed Los Angeles/Long Beach light rail is an example of a project built without federal funds.

Mr. Chairman, I would now like to focus on an issue that is important to California and the subject of your other panels--traffic congestion.

TRAFFIC CONGESTION

Traffic congestion is a fact of life for most metropolitan drivers in the United States--especially in the Los Angeles and San Francisco Bay areas--where congestion is approaching gridlock proportions. In November 1989, we reported that Los Angeles and San Francisco/Oakland ranked first and second, respectively, in daily vehicle miles of metropolitan travel.[4] Traffic congestion facing metropolitan areas cannot be solved by any single solution, such as expanded mass transit systems. Absent other actions, such as dramatic increases in the price of automobile commuting, people using mass transit instead of their automobiles will be replaced in the long run by new automobile users.

In a December 1989 report on traffic congestion[5], we evaluated three congestion reduction strategies: construction and reconstruction, transportation systems management, and advanced technologies. The report noted that, according to the Federal

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[4] Traffic Congestion: Trends, Measures, and Effects (GAO/PEMD-90-1, Nov. 30, 1989).

[5] Traffic Congestion: Federal Efforts to Improve Mobility (GAO/PEMD-90-2, Dec. 5, 1989).

Highway Administration, effective congestion reduction requires the balanced use of a variety of strategies and techniques rather than relying on any one in particular. The report recommended that DOT develop an integrated federal congestion-reduction strategy and use appropriate evaluation mechanisms to determine the effectiveness of congestion reduction programs.

California has approved several measures intended to plan for congestion relief. For example, California now requires urban counties to adopt congestion management plans to show how congestion will be reduced. These plans are required to be consistent with regional and statewide transportation plans.

Developing effective strategies to relieve traffic congestion requires the cooperation of federal, state and local governments. We are pleased to participate in the Subcommittee's hearings in California to obtain regional views as a forerunner of the national debate on UMTA's reauthorization. In this context, I would like to briefly talk about UMTA's reauthorization issues.

REAUTHORIZATION ISSUES

Mr. Chairman, as you know, legislation authorizing the federal highway and mass transit programs will expire next year. The nation's surface transportation problems have fundamentally changed since the programs were initially authorized in 1964. With this in mind, the debate has begun on how to structure new federal surface transportation programs.

In February 1990, DOT issued its statement of national transportation policy, Moving America. This statement sets the framework for developing new surface transportation programs. In June 1990, the California Department of Transportation issued its report Addressing Modern Transportation Challenges. The report details California's recommendations for a new national transportation program. It was developed through consultation with state, regional, and local officials and private business representatives from California and throughout the nation.

With respect to urban mass transit programs, we are in the process of identifying and analyzing several reauthorization issues. In analyzing these issues, we will obtain input from federal agencies, state and local governments, and the private sector. The issues we have identified to date include the following:

-- What are the appropriate federal, state, and local government roles in planning, overseeing, and evaluating mass transit projects?

-- Should mass transit operating assistance be reduced or eliminated and local matching requirements increased or decreased?

-- Can intermodal regional transportation planning approaches be adopted to promote the use of a combination of highway and mass transit system options to solve transportation problems in urban areas? How should state and local government planning efforts be funded to provide incentives for ensuring regional and intermodal planning?

-- To facilitate implementing regional and intermodal planning, should federal funding requirements be changed to allow flexible use of highway and mass transit funds? Should highway trust funds be used interchangeably by state and local governments for combined transit and highway projects in order to tailor transportation options to their specific needs?

As the Congress proceeds with reauthorization, it must take into consideration today's climate of fiscal constraint. This will be the climate under which the Subcommittee will be deliberating reauthorizing mass transit programs next year. Further, because of the massive federal budget deficit, federal funds for mass transit programs will remain scarce compared with the need for mass transit systems for urban and suburban communities. Therefore, scarce federal mass transit resources must be spent in the most efficient and economical manner possible.

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This concludes my testimony. I will be glad to answer any questions at this time.

Figure 1

GAO Section 3 and Section 9 Appropriations-Fy 86-90

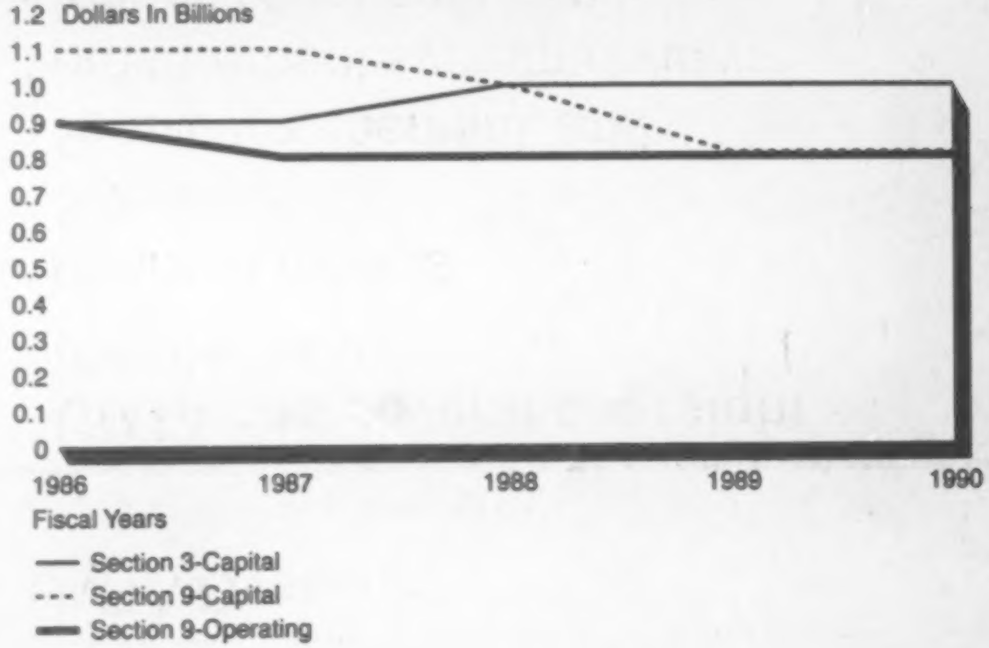


Figure 2

GAO UMTA Oversight

UMTA has several oversight mechanisms –

- Grantee reports
- Site visits
- Preaward, triennial, and procurement system reviews
- Independent annual audits

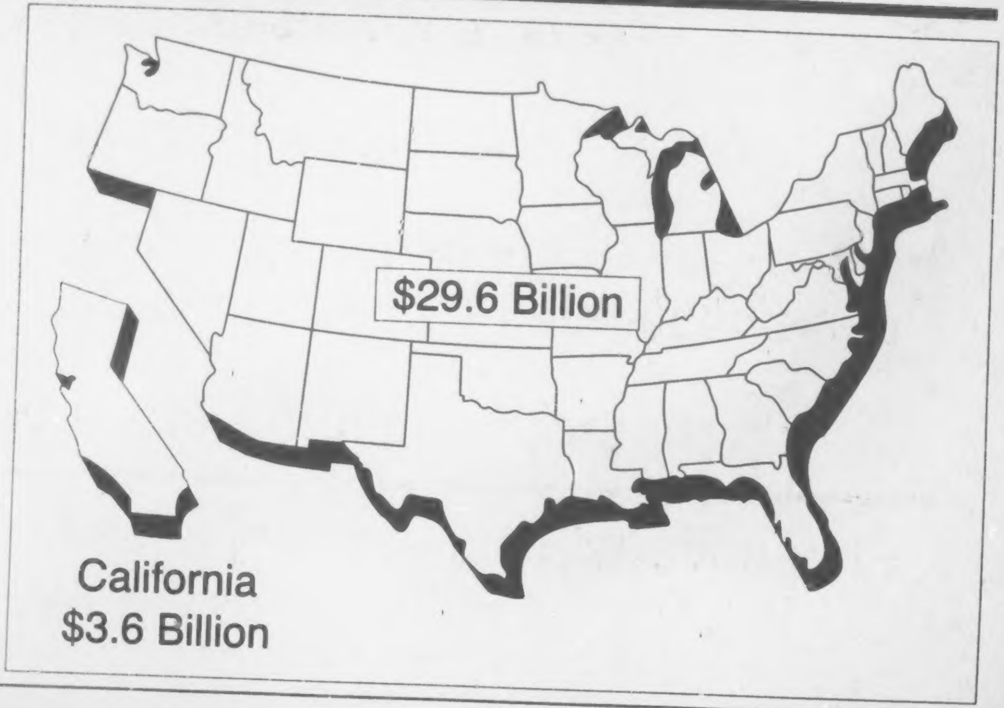
Figure 3

GAO Preliminary Results– Types of Grantee Mismanagement

- Untimely grant closeout
- Improper charges (land acquisition, labor, material, etc.)
- Improper contracting
- Unnecessary purchases

Figure 4

GAO Active UMTA Mass Transit Grants Total $33.2 Billion Nationwide


$29.6 Billion
California
$3.6 Billion

STATEMENT OF STEVEN A. DIAZ
CHIEF COUNSEL
URBAN MASS TRANSPORTATION ADMINISTRATION
BEFORE THE SENATE COMMITTEE ON
BANKING, HOUSING AND URBAN AFFAIRS
SUBCOMMITTEE ON HOUSING AND URBAN AFFAIRS
CALIFORNIA FIELD HEARINGS
AUGUST 7-8, 1990

Mr. Chairman, my name is Steven A. Diaz. I am the Chief Counsel of the Urban Mass Transportation Administration (UMTA), an agency of the United States Department of Transportation. My appearance here today is in response to your July 27, 1990, letter to our agency requesting its participation in these field hearings on the UMTA grant management process. Appearing with me today is Renee Marler, Counsel for Region IX which has jurisdiction over a number of States including California.

DESCRIPTION OF UMTA'S GRANT PROGRAM

UMTA is the principal source of Federal financial assistance for public mass transportation in the nation. Since its beginning in 1964, UMTA has provided $59.6 billion in funding to public transit systems throughout the nation. Each year, UMTA provides funds to about 450 urban mass transit systems using UMTA's formula and discretionary grant programs. In addition, UMTA provides funding to non-urban rural communities through a series of programs administered through the States.

Formula Grant Program

Under the Urban Mass Transportation Act of 1964, as amended (UMT Act), Section 9 formula funds, which come from the general fund, are apportioned to urbanized areas using a formula based on population density and other factors associated with transit service and ridership. Grants under this formula program provide financial assistance for capital, operating and planning projects.

Discretionary Program

UMTA's Section 3 program is one of the largest discretionary grant programs in the Federal government. In FY 1990, Congress provided UMTA with $1.3 billion in budget authority for discretionary grants. Funds for the Section 3 program come entirely from the Federal motor fuel tax. The purpose of the Section 3 program is to assist in the funding of high priority projects, or extraordinary projects, for which the costs exceed the level of available Section 9 formula funds as well as local resources.

The Section 3 program is comprised of three categories:

- Bus - The acquisition of buses and ancillary equipment and the construction of bus facilities.
- Rail Modernization - Limited to the traditional ""old rail cities" (i.e., Boston, New York, Philadelphia, N.E. New Jersey, Pittsburgh, Cleveland, San Francisco and Chicago).
- New Starts - Funding for new rail projects. Eligible projects are subjected to a rigorous planning process including alternatives analysis.

SCOPE OF REGION IX GRANTS

Region IX is responsible for grants in several states, including California. The regional staff deals with 88 grantees, annually awarding about 100 grants obligating about $500 million in Federal funds. There are over 400 active grants, with total obligations of about $3.8 billion, of which $1.1 billion has yet to be disbursed.

The largest grants are awarded to regional transit agencies in Los Angeles, the Bay Area, San Diego, Sacramento and Honolulu. Active grants to 15 grantees in the Los Angeles-Long Beach Urbanized Area amount to approximately $2 billion in obligations, or about 53 percent of the total. Of this amount, grants for construction of the Metro Rail subway in Los Angeles account for $1 billion. Active grants to 12 grantees in the San Francisco-Oakland and San Jose Urbanized Areas amount to another $1.3 billion.

DOCUMENTATION OF THE USE OF UMTA FUNDS

Federal regulations (see 49 CFR Part 18) require grantees to provide UMTA with considerable documentation on their use of Federal funds. This documentation, provided through narrative reports (both project and financial), is provided to UMTA on a quarterly basis, as well as through other reports on significant issues related to projects.

UMTA grantees are responsible for administration and management of the Federal grant in compliance with the terms and conditions of the grant agreement and requirements of applicable UMTA circulars and regulations. UMTA monitors grants to confirm that grantees establish and follow procedures that are reasonable and comply with UMTA requirements.

UMTA receives information from grantees at an appropriate level of reporting detail. This will assure that UMTA has the information needed to manage its overall program and to respond fully to specific requests from Congressional committees, auditors and the general public.

The information UMTA needs for program forecasting, management and reporting is furnished by the grantee through quarterly narrative progress reports about significant events, relevant grant activities and any changes to or variance in the grant schedule or budget. At a minimum, each quarterly progress report provides the following information:

(a) A discussion of budget or schedule changes not requiring UMTA approval.

(b) A comparison of scheduled activities and budgeted expenditures with actual accomplishments for the reporting period. Reports should be specific and include information on present status; completion dates for specification preparation; bid solicitations; resolution of protests; and contract awards. Also completion and acceptance of equipment and construction or other work should be discussed.

(c) Reasons why any scheduled milestones or completion dates were not met, identifying problem areas and discussion by the grantee on how the problems will be solved.

(d) A list of all outstanding claims exceeding $100,000 and all claims settled during the reporting period.

UMTA also receives from grantees quarterly financial status reports which are used to monitor project funds. This is to report the status of funds used for all non-construction and construction projects based on the required supporting documentation maintained by the grantee under an adequate accounting system that produces information which objectively discloses financial aspects of events or transactions.

Other reports required of the grantee by UMTA in its oversight role include the Disadvantaged Business Enterprise (DBE) Quarterly Progress Report required by the U.S. Department of Transportation's DBE regulation, and reports of significant events. These latter reports are to be issued when unforeseen events that affect the schedule, cost, capacity, usefulness or purpose of the project occur. In these situations, the grantee should report the event immediately to UMTA, and then reflect it in the next quarterly progress report as well. The quarterly report is due within 30 days after the end of each calendar quarter. Payments to grantees may be withheld when reports are not submitted on time.

UMTA PROJECT OVERSIGHT

With respect to UMTA's oversight jurisdiction or responsibility, it is important to note that UMTA is not a regulatory agency. Specifically, local agencies are responsible for determining service levels and fare structures, and all other matters relating to the day-to-day operations of a transit system.

Our oversight responsibilities are spelled out in our authorizing legislation. Specifically, Section 3 of the UMT Act requires that no grant or loan shall be provided under this section unless the Secretary determines that the applicant has or will have the technical capacity to carry out the proposed project. Section 9 of the UMT Act requires each recipient of funds made available under this section to annually certify to UMTA that it has or will have the technical capacity to carry out the proposed Program of Projects. This determination is made using several formal and informal methods including:

- Day to day contact and information meetings between the grantee and UMTA staff;
- Grantee requests for guidance;
- Annual and special audits;
- Progress and financial status reports;
- Third party contracting activity;
- Quarterly project review meetings; and,
- Triennial reviews.

The Quarterly Project Review Meetings (QPRM) deserve further discussion. QPRM's are an important technique UMTA uses for overseeing and managing the work of its larger grantees. These meetings, which are held four times a year, are attended by UMTA Regional Managers and staff, Grantee General Manager and staff, project management oversight contractors, and, if the issues to be discussed warrant, UMTA Headquarters representatives. The meetings are a forum for management briefings, verbal status reports, discussions of accomplishments or problems that have arisen over the last quarter and proposals for action to be taken on significant problems. These face to face discussions provide a recurring, structured opportunity for direct communication on problems and issues and often draws out information that is not apparent from the written quarterly progress reports. Action items highlighted during the QPRM's are monitored during the quarter, and are the subject of follow-up discussions during subsequent meetings.

STRENGTHENING OF OVERSIGHT ACTIVITIES

In response to internal and external examinations revealing the need for increased grants management oversight within the agency, UMTA has taken a number of actions to strengthen and improve performance.

I. PROJECT MANAGEMENT OVERSIGHT

In 1989, UMTA issued final regulations implementing the Project Management Oversight (PMO) program mandated by Section 324 of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (STURAA). This section permits UMTA to use up to 0.5 percent of the funds made available in each fiscal year under its capital grants programs for PMO of major capital projects.

Beginning in 1983, UMTA reviewed the way in which it provided oversight of one of its principal functional areas - construction of major capital projects by recipients of its funds. After examining a number of other Federal oversight programs, UMTA determined that a definite need existed to increase its independent oversight of projects utilizing large amounts of Federal funding. As a result, UMTA developed a national project management oversight program for major capital projects using independent contractors. Under the program, UMTA assigned independent contractors, paid by and reporting directly to UMTA, to perform project management oversight functions on certain major capital projects. This arrangement allowed UMTA to more carefully monitor certain major capital projects without increasing its staff. The 1987 STURAA subsequently provided specific authorization for this program and provided it with an assured source of funding.

The program has two parts. First, there is project management oversight which is designed primarily to aid UMTA in its role of ensuring the successful implementation of Federally funded projects. UMTA normally would contract for PMO services during the grant application process, although it is possible for UMTA to make the determination that a project is "major" at a later date, and contract for PMO services at that time. Second, there is the project management plan (PMP) required of all major capital projects as a condition of receiving Federal assistance. The PMP is designed to enhance a grantee's planning and implementation efforts, as well as to assist UMTA's grant application analysis efforts. Although the PMP is required to be submitted during the grant review process, the actual due date can vary as the result of a number of factors including the fact that UMTA may not have made the determination that the project is a "major capital" one. UMTA considers the PMP to be a dynamic document reflecting the various stages of a project's development. As such, it is necessary for the grantee to submit periodic updates as needed - and appropriate - to reflect the changing conditions of the project.

UMTA currently has a stable of 12 contractors retained through the competitive procurement process who carry out PMO activities which now involve work on some 33 different projects. A provision in UMTA's Fiscal Year 1990 appropriation law assists the agency in this effort by amending the statutory project management oversight language to allow UMTA to expand the use of those funds to pay contractors to perform procurement, safety, and financial management audits of our grantees. We are pleased with the way the program is working, and with the enactment of that provision because we believe it will enable us to better perform our ongoing oversight functions.

Let me point out in this connection that most PMO projects involve new rail starts. In the 1987 reauthorization of the transit program, Congress mandated that UMTA fund only those new start projects that the Secretary found to be cost-effective and supported by an acceptable degree of local financial commitment. Unfortunately, the 1990 DOT appropriations act prohibits us from a final regulation that would implement the Congressional mandate, and it appears that the prohibition will be reiterated in our 1991 appropriations bill now pending in Congress. We urge Congress to allow us to issue our final rule so that the 1987 law may be implemented.

II. THIRD PARTY CONTRACT ACTIVITY

The UMT Act contemplates multiple roles by UMTA in grantee procurements. For example, Sections 3 and 9 require use of competitive procurements; prohibit use of exclusionary, discriminatory specifications; require compliance with Buy America provisions; ensure procurement procedures are fair and competitive, etc. These responsibilities are carried out through UMTA's Third Party Contracting Activity (TPCA) whose purpose is to ensure that funds appropriated under the UMT Act are expended in the most efficient and effective manner consistent with principles of maximum free and open competition and other statutory requirements.

UMTA's Third Party Contracting Activity consists of three principal elements:

A. Guidance and Technical Assistance

Guidance to Grantees: technical assistance by way of oral advice is provided by both headquarters and field personnel. In addition, policy and procedures are issued in the UMTA Directives System. UMTA Circular 4220.1B, Third-Party Contracting Guidelines, dated May 5, 1988, serves as the principal vehicle for establishing minimum requirements applicable to all grantee procurement systems. In addition, UMTA has developed a Handbook For Third-Party Contracting, that describes in lay terms the fundamental principles of contracting with Federal funds and explains in general the major do's and don'ts. The Handbook was recently tested in field training and, following final revisions, will be made available as an aid to all our grantees this fiscal year.

Third Party Contract Review. UMTA has identified certain categories of contract action which are particularly susceptible to abuse and therefore requiring special oversight. Included in this category are sole source contracts and single bid awards, UMTA has a system in place whereby selected contracts of this type are required to be submitted to UMTA for review. In turn, UMTA has established a Third Party Contract Review Board which serves to provide UMTA program managers with advice and assistance as requested.

Systems and Procedures. As part of its Technical Assistance to grantees, UMTA performs limited reviews of both individual contract actions as well as broader reviews of grantee systems and procedures.

B. Training

Procurement training for both UMTA and grantee staffs is provided through a combination of in-house and contract training in both the fundamentals of government contracting as well as specialized courses in particular areas where a special need has been identified as in the areas of negotiation and cost/price analysis.

C. Oversight

Beyond the provision of technical assistance and training, UMTA has a duty to monitor the ways in which grantees expend UMTA assistance in carrying out authorized program activities. Traditional oversight activities include financial audits, operational audits, and other program and administrative reviews.

Self-Certification. UMTA Circular 4220.1B requires recipients operating 100 or more buses to self-certify that their procurement systems meet the minimum requirements of the Circular. Operators of smaller systems are permitted, but not required, to self-certify. Self-Certification includes provision of a system description outlining the basic elements of the grantee procurement process. This summary is reviewed by UMTA staff as part of the triennial review activity and for other monitoring purposes.

Procurement System Reviews. Section 9(i) of the UMT Act provides that recipients may request the Secretary approve their procurement system. Approval is binding until withdrawn for all expenditures under Section 9. In addition to these "Certification Reviews", UMTA periodically initiates its own in-depth reviews of recipient procurement systems in response to a variety of stimuli including OIG audits, Congressional inquiries, public complaints, triennial review findings, etc.

UMTA is reviewing proposals for a contract similar to the PMO contract (multiple awards, work to be authorized by task order) to conduct reviews of grantees' contracting systems. It is expected that work under this contract will begin in October 1990, and continue through September, 1995. Reviews will be of two types: General Purpose Reviews, which will follow a published annual schedule and be conducted according to a structured protocol, and Special Purpose Reviews, which will be scheduled as needed, and structured according to the purpose for which the review is being conducted.

Special Studies. In addition to procurement systems reviews, the contractor would occasionally be tasked with performance of special studies of particular contacting issues.

Responsibility and authority over third party contracting matters is disbursed throughout the agency according to delegations of statutory authority under different sections of the UMT Act. There is virtually no program office in UMTA that does not have substantial responsibility for TPC. The TPCA has been identified by UMTA as an integral subsystem of an overall UMTA Management Oversight Activity necessary to fulfil the requirements of the UMT Act, as well as the Federal Managers' Financial Management Integrity Act. As such, increased staffing and contract resources have been budgeted for this activity over the next several fiscal years.

III. TRIENNIAL REVIEW

In the 1982 Surface Transportation Assistance Act, Congress established a new Section 9 formula block grant program, and provided that compliance would be through self-certification by grantees. Section 9 of the UMT Act also requires, however, that the Secretary shall, not less than once every three years, perform a full review and evaluation of the performance of a recipient in carrying out the recipient's program, with specific reference to compliance with statutory and administrative requirements, and consistency of actual program activities with the proposed program of projects. The review consists of 19 specific program areas.

It is important to note that the triennial review is not an audit, but rather a practical and reasonable approach to maintain a non-intrusive, credible stewardship of the grant program. It was deliberately developed to be a general look behind the self-certifications that accompany the Section 9 grant application. Absent compelling evidence that a problem exists, there is no reason for the triennial review to probe beyond routinely available records. This is the work of auditors and should be left to the auditors during the A-128 audit, the OIG or the GAO.

Some contend that the triennial review should be more comprehensive. For example, GAO recently recommended that we expand the triennial review to include certain tests of a recipient's procurements to determine that proper procedures were being followed, that UMTA expand its safety review, and that it expand its review of private enterprise participation.

UMTA welcomes any recommendations that may improve our performance of the program in accordance with the agency's policies and within the scope of the definition of the triennial review. We do have concern, however, with recommendations, such as the GAO's, that would change the scope and direction of the triennial review beyond that which was ever intended, and beyond UMTA's resources, capabilities or legislative authority. In this connection, we believe our current process is carrying out the program in accordance with the statute.

Given the staff levels at our regional offices, several regions were experiencing difficulty in meeting their triennial review schedule demands. To alleviate this condition, UMTA has entered into a Memorandum of Understanding with the Department of Transportation's Transportation Systems Center (TSC) to provide contractor services as a supplement to UMTA staff reviews. Thus, approximately 33 triennial reviews for Fiscal Year 1990 will be conducted by TSC. We expect the popularity of choosing the option of contracting out some of the more difficult reviews (largest recipients) to grow among our regional offices who perform about 150 reviews each year.

UMTA believes that contracting will enhance the entire program and provide an opportunity to raise the level of documentation which we have found is lacking in our regional offices. Documentation of the triennial review has been emphasized throughout the contracting process and is a stated deliverable in the work statement. Because 1990 is the conclusion of the second cycle of the triennial reviews, we believe that this is an appropriate time to revisit the program. Thus, UMTA has asked TSC to focus on the Triennial Review Order which contains the process we follow in conducting the reviews with an eye towards maintaining sensitivity to the critiques that the reviews be more substantive.

IV. FINANCIAL CAPACITY

UMTA is actively considering a plan to provide, through a competitively procured contractor, extended financial management oversight of grantee projects by having the ability to perform financial reviews of those projects where potential problems have been noted. Under consideration are two procurements totaling $400,000 from Project Management Oversight funds.

On several occasions in the past, financial problems have arisen at grantee organizations that required UMTA staff to preform on-site financial reviews of the grantee's operations. By their very nature, these reviews have been time-sensitive, requiring immediate action on the part of the agency to ensure that Federal funds were being adequately protected. Since UMTA has no specific audit capacity, these financial reviews have been conducted by Accounting Division staff in the Office of Budget and Policy. Since Accounting Division staff have other full-time duties, it is extremely difficult to provide adequate staff on short notice to conduct these reviews. The planned procurement would provide the necessary capability through a contract with a certified public accounting firm to perform the service.

However, these reviews are not intended to be comprehensive audits but, rather, an effective and timely assessment of the reported or suspected problems, and to ensure that the grantee has adequate control over the Federal funds disbursed to them. Requests for comprehensive audits, if needed, could then be made to the OIG.

Let me conclude by emphasizing that UMTA takes very seriously its responsibility for identifying internal control weaknesses, and is aggressively pursuing corrective actions to strengthen its oversight capabilities for grant management. We look forward to working with the GAO and your subcommittee as we seek further improvements in our grants management system.

This concludes my statement and I would be pleased to respond to any questions you may have.

LACTC

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Testimony by

SHARON NEELY

Director of Policy
LOS ANGELES COUNTY TRANSPORTATION COMMISSION (LACTC)

before the

Subcommittee on Housing and Urban Affairs
of the Senate Committee on Banking, Housing and Urban Affairs

Senator Alan Cranston, Chairman

Mr. Chairman:

It is appropriate that you have chosen Los Angeles to begin your national field hearings on the reauthorization by the 102nd Congress of the Surface Transportation Act.

Mr. Chairman, your efforts on behalf of housing programs and the many accomplishments achieved through your leadership on the Senate Banking, Housing and Urban Affairs Committee are now very much needed to ensure the successful completion of an ambitious multimodal system which can reduce this region's dependence upon single-passenger vehicles for mobility.

We believe that California and Los Angeles County can set an example for this nation. We recognize that there is no single answer to our region's mobility needs, so LACTC is advancing a comprehensive plan which includes heavy rail, light rail, commuter rail, bus and HOV transitways, HOV-lanes, Smart Street corridors, van pools, ridesharing, and bikeways.

The people of Los Angeles and this State have supported a strong local contribution to transit development. Proposition A, the 1/2 cent sales tax for transit generates close to $400 million annually, and the voter-approved Propositions increased the gas tax and authorized bonds for transit and highway projects across the state.

Even with this strong local commitment, the federal role remains central to solving our mobility needs. I would like to briefly address our thoughts regarding federal transportation programs, essential provisions for reauthorization, and the role of UMTA oversight in complementing our local efforts.

The Federal Role in Transit

Senator Cranston, as you know, the past ten years have seen a dramatic reduction in the level of federal investment in our nation's transportation infrastructure. Whereas, ten years ago federal appropriations amounted to $4.6 billion for transit, this has declined almost 50% to current levels of $3.1 billion, without even factoring in inflation.

The American Public Transit Association (APTA) has determined that $6.5 billion would be required just to maintain the existing infrastructure, or more than double current levels, to contribute the fair federal share of resources to preserve the existing bus and rail systems.

To those who wonder how such a level of investment can be achieved, we ask how can we not provide the necessary tools to enable this nation to achieve the goals set forth in the recently enacted Americans with Disabilities Act as well as the mandates expected when the Clean Air Act is amended later this year.

APTA has called for a seven cent increase in the federal gasoline tax, dedicated to transit in addition to the current penny which is dedicated to the Mass Transit Account of the Highway Trust Fund.

Such an increase would make permanent the funding source for transit and allow a program to be structured in a manner which regularizes what transit operators can expect annually.

The ongoing uncertainty in the Middle East could have an impact upon world energy prices, which drives home even stronger the need to discourage unnecessary gasoline consumption and to promote alternatives which reduce the number of vehicle miles travelled.

We look forward to working with you and your staff on a reauthorization strategy which can enable our nation to achieve clean air standards, ensure mobility for all, and reduce congestion and improve quality of life.

Transit Development in Los Angeles

Because of the outstanding support which you and your colleagues in the California delegation have provided, the Surface Transportation Act has authorized the first two segments of the LA Metro Red Line subway project from downtown to the San Fernando Valley.

It is also important to note that in terms of the total rail construction program through 2001, non-federal funds amount to more than 75% of the budget for more than 70 miles of heavy and light rail.

Metro Red Line

Through provisions of the 1987 Surface Transportation Act, we were able to secure, last April, a full funding grant agreement with

UMTA securing the federal, state, local, and private financing for the 6.7 mile, eight station segment known as MOS-2. The $667

million federal share of MOS-2 represents 48% of the project's cost. A fellow member of this panel, Steve Diaz, played a critical role in concluding this funding agreement and we are grateful for UMTA's commitment.

Construction on MOS-1, the first 4.4 mile segment from Union Station to Wilshire/Alvarado is now 65% complete. Despite the setback of the fire in a service tunnel for trains going to the maintenance area, we can assure you that this incident will not cause an increase in project cost, because it is fully insured, nor will it delay the opening of the line, because a second tunnel was undamaged and we have, therefore, been able to work around the delays due to reconstruction.

For the 1991 Reauthorization, Senator Cranston, we are seeking exactly the same provisions from the '87 law which will ensure the funding of MOS-3, the last segment from Hollywood and Vine to Lankershim and Chandler, 6.3 miles and three stations which includes a $688 million federal share.

It remains important that Congress demonstrate its continued commitment to completion of this third segment which will connect North Hollywood to downtown Los Angeles.

Metro Orange Line

Senator, as you know, there has also been a longstanding commitment to extend the Red Line east and west to serve large numbers of potential riders. This line has been designated as the Orange Line and will extend west of Wilshire/Western and east of Union Station.

LACTC has submitted the required planning documents, both the System Planning Study and the Transitional Analysis, to UMTA which are under review. These studies demonstrate the cost-effectiveness of extending Metro Rail west and east and consider potential routes to reach communities in west Los Angeles, Century City and Westwood as well as through Boyle Heights and areas of East Los Angeles past Union Station.

We are looking now at creative approaches to accelerate the alternatives analysis process, whereby the locally preferred route is selected, and thereby bring these extensions into service earlier and at less cost. It is our hope to seek funds for final design, preliminary engineering and perhaps construction and we want to work with you on provisions in this regard. It is our hope to begin construction on the Orange Line no later than 1996.

UMTA Oversight

One of the issues which our panel is to address is UMTA oversight and effectiveness in supporting the work of local transit agencies.

First off, the LACTC wants to express our great appreciation for the outstanding interest and support shown by UMTA Administrator Brian Clymer. Just two weeks ago, Administrator Clymer came to Los Angeles in order to personally tour the tunnel fire and to be briefed on the investigation and mitigation efforts.

Mr. Clymer gave a real boost to the LACTC, RTD, CALTRANS and the LA Fire Department for our joint effort responding to the fire. Furthermore, he strongly reiterated the federal government's support for Metro Rail and helped us to make the public aware that this setback will not impact the budget or schedule. Both Administrator Clymer and Secretary Skinner have distinguished themselves as concerned and forceful advocates for transit.

Metro Rail Project Oversight

In terms of the Section 3 discretionary grants program, which is funded through the Trust Funds, our largest project is Metro Rail. Congress has earmarked every dollar which Los Angeles has received.

UMTA requires that 1/2% of our federal funding for MOS-1 be reserved for a Project Management Oversight Consultant (PMOC). The PMOC provides the functions of offering management advice and an independent review of all activities related to the project.

Hill International serves as the PMOC for MOS-1, and they have done an excellent job of working cooperatively with us on a myriad of issues related to the project. Recognizing that the federal government has a $695 million investment in MOS-1, the PMOC plays a valuable role in keeping UMTA apprised of progress and issues which arise in terms of cost, schedule and other concerns.

UMTA Regional Office

In terms of our interaction with the UMTA Regional Office in San Francisco, we recognize that there has been a problem of understaffing, but we have found the office to be most cooperative in addressing our grants administration needs. Overall, we have enjoyed a close and cooperative working relationship with the Regional staff and find that they work hard to be responsive and prompt in answering our requests.

Summary

Senator Cranston, we are very excited at the key role which you will have in reauthorizing UMTA's programs and ensuring the successful completion of the LA Metro system. We look forward to working closely with you and your staff in the coming months and would be pleased to respond to any questions you have.

SENATE SUBCOMMITTEE on HOUSING and URBAN AFFAIRS
AUGUST 7, 1990
Testimony submitted by Richard Edgar, Chair
Board of Directors of the Orange County Transit District

Good Morning, Senator Cranston and members. I am Richard Edgar, Chairman of the Board of Directors of the Orange County Transit District. I am also the Mayor of the City of Tustin, and am a member of the Orange County Transportation Commission.

I am pleased to have the opportunity to talk about OCTD's current services as they relate to congestion management, and about our thoughts on reauthorizing federal transportation assistance.

First let me describe the environment in which the OCTD operates in Orange County. Once we were in the shadow of Los Angeles. Now we are an enormously successful and powerful economic engine in our own right. After three decades of explosive growth, Orange County in now home to 2.3 million people of increasing ethnic diversity. There are 1.2 million jobs in Orange County, and we have an unemployment rate of less than 3 percent.

Since much of Orange County's growth has come after the slowing down of state and federal freeway building, Orange County has turned to local programs to meet our transportation needs, such as:

o Our developer fees are the highest in the nation, paying for roads well beyond the actual site of developments, including a fee program that is a catalyst for California's first three tollways.

- We lead the state in miles of High Occupancy Vehicle (HOV) lanes, with more under construction. We are well on our way to completing a 110-mile system of exclusive lanes for carpools and buses.

- We recently introduced the first Southern California commuter rail service running between South Orange County and downtown Los Angeles, and along with other counties in the region is experiencing a resurgence in public interest in rail transit. In addition, our bus system is carrying 46 million passengers per year.

While we have had trouble convincing our local voters to agree to increasing the sales tax to finance local transportation projects, we are encouraged by the local results of the votes on the three transportation measures on the June ballot. One bond measure passed in Orange County; the gas tax increase and the second bond measure failed by very small percentages. Because the Orange County Transportation Commission, including myself, feels so strongly that we need local money, especially to match new state funds, we will again ask the voters to approve a one-half of one percent sales tax in November, 1990.

With this background, I will now turn to our key recommendations for a new national surface transportation program. These are:

- Preserve and protect the federal revenues that have built and supported so much of our transportation system. We view the fuel tax as a "user fee" that should be dedicated to transportation investments. We recommend that you make permanent the Highway Trust Fund and the revenues to support it.

- Maintain a strenuous opposition to increasing fuel taxes for the purpose of reducing the federal budget deficit.

- Preserve the 85 percent minimum allocation of fuel tax dollars to California.

- Spend down the Highway Trust Fund balance to prudent levels, at a reasonable rate; and gradually lift the obligation limits for transportation programs to prevent further buildup in the Trust Fund.

- Continue the federal role in the rehabilitation and replacement of the federal-aid-highway system.

- Continue the federal support of transit programs, including the dedication of at least one penny of the fuel tax to transit. We support both the formula and the discretionary programs, and would also support greater flexibility in their use.

I am enclosing a addenda to this statement which describes a specific project for which OCTD is seeking federal capital assistance for part of our transitway program.

Now let me describe Orange County's Congestion Management Plan.

OCTD participates in a cities-and-county planning effort mandated by the recently passed state transportation package of bills.

While this planning emphasizes the role of government in congestion management, OCTD works closely with employers in various programs related to their meeting air quality regulations. I am now going to describe how these two activities relate to each other.

OCTD offers a "family of services" to the commuting public. In addition to our successful transit operation, which already surpasses previously projected 1994 ridership levels, our Commuter Network department serves as the local commute management agency for Orange County. OCTD is also a partner in a major facilities development project, a 110-mile network of transitways and high-occupancy vehicle lanes which will provide commuters with a travel time savings incentive for participating in a rideshare arrangement.

As the primary Orange County agency responsible for the implementation of Transportation Demand Management (TDM) strategies, Commuter Network works extensively with employers to develop and maintain corporate rideshare programs. We do this by helping employers to collect and analyze employee commute origin data, and by preparing a detailed proposal for each company that describes how to implement an effective TDM program. Possible strategies can include carpools, transit use, vanpools, telecommuting, alternative work hours, and in short, any other activity that reduces trips to the worksite.

Each corporate rideshare proposal is custom-tailored. That is, Commuter Network will only recommend the strategies most likely to be effective, given a company's unique employee demographic profile. For example, if most of the company's employees are long distance commuters, vanpool formation activities would be emphasized over transit use. Conversely, if more employees are close-in, transit, walking and bicycling would be emphasized over vanpooling.

Clusters of employers can be more effective in managing transportation demand than could individual employers. Therefore, OCTD works with such groupings called either Transportation Management Associations or Commute Management Centers. For example, we work with a large group in the South Coast Metro area, providing staffing on-site, as well as technical assistance. We have newly begun working with smaller groupings in San Clemente and Laguna Beach, for which we provide only technical assistance. These programs are partially funded by federal Suburban Mobility grants from the Urban Mass Transportation Administration.

Air quality and congestion management requirements have generated a significant amount of employer interest in the Commuter Network program. For example, in the first year after the South Coast Air Quality Management District (SCAQMD) Regulation XV was adopted (FY 1988-89), Commuter Network generated 93 percent more commuter "matchlists" than had been generated the previous year. We expect to see continued strong demand for Commuter Network services, particularly as Regulation XV is expanded to require businesses with 25-100 employees and companies located in multi-tenant buildings to participate.

Regulation XV is only one small part of the overall Air Quality Management Plan (AQMP) . The AQMP will strive to attain federal air quality standards in the South Coast Air Basin within the next 20 years. Under the AQMP, cities and other local governments will be required to enact ordinances that require employers to implement alternative work hours, satellite work centers, telecommuting and other programs related to TDM. These regulations can only translate into an increased workload on commute management agencies such as Commuter Network.

Additionally, a state-required Congestion Management Program (CMP) is being developed to link TDM to other issues, such as land-use patterns and capital improvement programs, that play a role in generating traffic. As TDM is more like to produce more short-term results, we expect it to be the cornerstone of the CMP.

As a result, Commuter Network, as the TDM implementation agency, can expect to see a significant increase in demand.

The most significant issue with relationship to this increased demand for TDM services is providing for adequate funding to meet the need. This issue is not likely to be resolved exclusively at the local and state level.

Finally, since many of these air quality regulations have their origin at the federal level, I would like to encourage the Congress to explore revising federal tax policies to be consistent with the federal air quality goals. For example, currently employer-provided free parking is classified as a non-taxable working condition fringe benefit, while employer-provided rideshare subsidies, with the exception of some minor transit benefits, are fully taxable to the rideshare participants.

Thank you for the opportunity to discuss the thoughts of the OCTD on reauthorizing federal surface transportation assistance; and to describe the specific programs for congestion management in which OCTD is involved. This concludes my presentation.

ADDENDA TO TESTIMONY by
ORANGE COUNTY TRANSIT DISTRICT
Before
THE SENATE SUBCOMMITTEE ON HOUSING AND URBAN AFFAIRS

August 7, 1990
Los Angeles, California

A significant component of the County's integrated transportation program is an approximate 90-mile system of operating and planned commuter lanes and a 20-mile transitway to provide for high occupancy vehicle (HOV) priority treatment throughout the county.

The transitway will tie the various HOV facility components together and is designed to directly serve the county's major activity centers. It consists of a barrier separated core project on I-5 combined with buffer separated lanes with exclusive access and egress ramps to local streets and arterials on the SR 57, SR 55, and I-405 freeways. For those interchanges with high traffic volumes, direct connection will be provided. These interchanges at I-5/SR 57 /SR 22, I-5/SR 55, and SR 55/I-405 represent significant capital investments designed to provide major travel-time savings to a large number of users. These direct connections are required if the countywide transitway and commuter lane system is to operate as a total system, provide relief for the traffic bottlenecks associated with freeway-to-freeway interchanges, and assure HOV commuters a safe and reliable trip.

Over the past several years, the Orange County Transit District and the Orange County Transportation Commission have taken joint actions in support of the development of transitways in Orange County, and in particular the core project on I-5. Concurrent with the CALTRANS project to widen I-5, the transitway project is expected to be under construction by mid-1991. Transit District staff is currently completing an Urban Mass Transportation Administration sponsored

Alternatives Analysis/Environmental Assessment (AA/EA) for the SR 55/I-405 interchange connectors which is intended to be the second phase of the transitway development program.

Local funding has and will be used to complete the core transitway project. It is anticipated, however, based upon the favorable reviews by UMTA staff, that the SR 55/I-405 transitway connectors will be partially funded by a federal grant.

In a letter to Representative William Lehman, Chairman of the Subcommittee on Transportation, House Appropriations Committee, last April, the Urban Mass Transportation Administration Administrator discussed criteria for Section 3 New Start Program funding of local projects. The first criteria is cost-effectiveness and the second is local financial effort. We believe that the SR 55/I-405 interchange project deserves your support based on its rating on both of these criteria.

UMTA Administrator Brian Clymer's April 5, 1990 letter shows in Attachment 2 that Orange County's project ranks best in cost-effectiveness of the five projects listed as being cost-effective. Cost-effectiveness is defined as total cost per new trip, or "dollars per new trip index". The projects described as "Likely to be Cost-Effective" include Los Angeles Metro extensions at $5.60 and $4.20 in 1985 dollars, with Orange County's project calculated at $3.75 in 1989 dollars.

In terms of local financial commitment, Orange County is projecting a local match of 25% to receive a $152 million UMTA grant. This must be placed in perspective in that the initial phases of this project have been and will be 100% locally funded. Thus the total cost of the 20-mile core transitway will be $462 million, with UMTA being asked to provide only about 33% in the form of a Section 3 grant for the SR 55/I-405 project.

The application for this grant will be submitted in the fall of 1990. We respectfully ask for your endorsement of this Orange County project. We recognized that the Appropriations Committee has jurisdiction over this funding, and we have become concerned that Congress has been endorsing future projects by earmarking funds in advance of the filing of grant applications. Therefore, we fear that Section 3 funding for the upcoming years could be committed before this project reaches the point in the UMTA process for grant application. We hope you can help us in whatever way is appropriate to see that funding is available for this very cost-effective project for Orange County.

Paramount Pictures

CHRISTINE ESSEL
Vice President
Planning & Development

STUDIO GROUP

Revised

August 8, 1990 VIA FAX: 213/215/2391

Alan Cranston
United States Senate
5757 West Century Blvd., #620
Los Angeles, CA 90045

Re: Testimony for August 7, 1990 meeting of Senate Subcommittee on Housing and Urban Affairs on the Mobility Action Committee

My name is Christine Essel and I work at Paramount Pictures in Hollywood, a company with a flexible work force of roughly 3,000 employees. I have been with Paramount for over 12 years. I have also been a resident of the Hollywood Hills for the past 2-1/2 years. Shortly, after moving to Hollywood, I was appointed by Mayor Bradley and Councilman Woo to the Hollywood Mobility Action Committee.

I am here today to tell you of what I know firsthand about the M.A.C. and how valuable and effective it is for our community

Mayor Bradley established the MACs approximately 3 years ago in order to make the improvements necessary to enhance mobility on our surface streets citywide. Our Committee consists of local residents, business representatives and government and city officials, including the Department of Transportation, Parking Enforcement, the Bureau of Engineering, the City Council, the Chamber of Commerce, the Police Department, the Community Redevelopment Agency and Cal-Trans - depending on the agenda. The community's responsibility is to bring to the committee those traffic-related problem areas that require immediate solutions. In many cases we have our own recommendations as to how these problems can be solved. We look for solutions that can be handled in the short term, efficiently, quickly and at a relatively low cost!! Our requests are evaluated by the technical staff, and we [illegible]ve updates at subsequent meetings.

5555 Melrose Avenue, Hollywood, CA 90038-3197 (213) 956-5202 FAX: (213) 956-3935

A Paramount Communications Company

This program is being funded out of the General Fund by a $25 increase in peak hour parking violation fines. These fines are used to fund the traffic flow and safety improvement projects which are generated by our activities.

These are the 6 primary types of improvements that we focus on:

1. LEFT TURN POCKETS
   Designated left turn lanes which speed traffic flow by allowing left turning vehicles easy left turn access without impeding the flow of on-going traffic.

2. CONTINUOUS CHANNEL LANES:
   Continuous median left turn lane for use by vehicles in either direction of traffic to speed the flow of traffic.

3. REVERSIBLE LANES:
   Peak hour traffic lane adjustments which add lanes to the predominant flow of traffic and that are adjusted in direction from morning "rush hour" to evening "rush hour".

4. LEFT TURN RESTRICTIONS:
   Posted signs preventing all left turns by vehicles during peak hour, high density traffic.

5. PEAK HOUR LANES:
   Posted signs restricting curbside parking during morning and evening "rush hours" (e.g., 7:00 am to 9:00 am. and 4:00 pm to 6:00 pm or 3:00 pm to 7:00 pm)

6. TRAFFIC SIGNAL TIMING:
   i.e., Creating extended green lights on major thoroughfares to speed traffic flow, (e.g., increase green light from 80-seconds to approximately 2 minutes).

This committee has proven to be a very effective and efficient method of-problem solving. There is a lot of overall cooperation and, for those of us who volunteer our time, we feel it is being well-used. We see immediate results and we know we are making a difference in the community. Especially on our drive home.

Cordially,

Christine Essel

Christine Essel

cc: Pat Michel, Councilman Woo's Office
    Bill Bicker, Mayor Bradley's Office

PRESENTATION TO
SENATOR ALAN CRANSTON
SENATE BANKING AND TRANSPORTATION COMMITTEE

THOMAS C. WOOD

AUGUST 7, 1990

Good Morning Senator Cranston and others. I am Tom Wood, a volunteer with The Foundation for Consensus in Transportation and Treasurer of the organization. I am also an attorney with McCutchen, Doyle, Brown and Enerson specializing in land use and real estate issues. I'm here today to tell you a bit about the purpose of the Foundation, what we've accomplished and the continuing transportation needs we see.

The Foundation was formed a little over a year ago because many concerned citizens simply got tired of the adversarial atmosphere that surrounds many environmental and development issues in the political process. These individuals, who represent business, homeowners groups, developers, and environmentaliss, were seeing each other at public hearings and meetings like this, where they often presented divergent testimony which gave the policy makers a series of narrow interest group viewpoints with little common ground. The result: little, if any, progress was made toward any of the interest group viewpoints. This was problem, a frustration, that many community leaders wanted to address.

They also knew that it was important to have the same information about a land use or transportation problem shared among those that cared about it. They also saw a need for a broader education of the pubic at large about transportation and land use matters.

And so, the Foundation was formed--out of a combination of frustration, desire to see progress and a need to educate. Our mission is:

> To educate the public regarding land use and transportation issues and encourage community agreement on solutions.

Since being formed, we have made some rather unique contributions to solving transportation and land use problems. In 1989 our volunteers operated a Speakers Bureau during which we gave presentations on the ballot measure to raise a 1/2 cent sales tax to fund local transportation projects. We reached over 5000 community leaders active in civic organizations, grass roots groups and professional organizations. Our presentation explained what has happened to transportation financing, how Orange County's transportation needs have changed, and what was in the proposed sales tax measure. We did not take a position on the measure, but instead simply presented the facts and let the audience draw their own conclusions.

That measure did not pass and Orange County will be voting on essentially the same proposal this November. The Foundation may again conduct a similar Speakers Bureau or other educational efforts. In addition, just this June the Foundation hosted two community leader conferences to gain community input on what is now this year's sales tax measure.

The Foundation has also provided input on transportation or land use legislation. Our recommendations focus on the process, rather than what projects should be funded. For example, this year's sales tax measure has several components that came from Foundation input, including:

- increased growth control requirements,
- requirements for cities to develop plans for open space;
- strengthened controls on how funds are allocated;
- increased citizen involvement, and
- specific ballot language making it more explicit what the public is voting on.

Transportation funding is not our only issue. We also focus on open space issues because Orange County residents recognize a strong link between transportation, land use and preserving open space and recreational opporutinities for the future. In this regard we recently sponsored the county's most definitive public opinion survey on willingness to fund open space acquisition with a specific emphasis on the Laguna Canyon project which I know you've been aware of.

Also, in part as a result of our efforts, the County has retained some consultants to investigate alternative acquisition approaches and possibilities for joint public private sector organizations or non-profit conservancies. The Foundation hopes to continue this cooperative program with the County and refine a proposal for one or more possible benefit assessment districts to acquire and operate selected parcels throughout the county for open space and recreation.

Our experience gives us several conclusions I'd like to share with you:

1. Building agreement is terribly time consuming, but crucial.

2. In today's environment, private sector groups need to be doing this so that elected officials can be presented with some common community viewpoints. However, business interests do not always see the relevance to their bottom line. Private businesses and leaders need to hear from public sector leaders like you that they must be supporting these kinds of efforts.

3. Ideally, some limited public dollars should be earmarked or available for that kind of up front consensus building groups or process-oriented efforts to help build community agreement.

4. It's better to pay for this process up front rather than at the end, through litigation, contested environmental reviews, etc. However, our political structure and funding approaches do not yet adequately encourage this early consensus building.

5. Communities that connect transportation projects to growth and development management should be rewarded in some way. Orange County is a leader in this and the local staff could share some interesting lessons with their counterparts.

6. A similar incentive approach should be applied to projects which have undergone a concerted consensus planning process. as we approach a new century, faced with the growth and development pressures that threaten to send economic vitality elsewhere in the next centure, we must be committed to develop a common vision. The 1970s

   approach to citizen participation was all too often marked by a cynical "let's hold public meetings because we have to, but not change the project much" approach that won't work now and instead will cripple much needed advances.

In conclusion, we believe the public financing process needs to encourage early consensus building on specific projects. Elected officials can do some of this, and try very conscientiously to do a considerable amount. The new focus has to be on the community groups and educators themselves, but they need the resources--in terms of funding, information, and a reeceptive public sector process--to make a viable, ongoing contribution in this regard.

I'd be happy to take any questions you may have.

Commuter Transportation Services, Inc.
CommuterComputer

TESTIMONY BEFORE THE

SENATE SUBCOMMITTEE ON HOUSING AND URBAN AFFAIRS

ON
TRANSPORTATION POLICY AND
CONGESTION MANAGEMENT

TESTIMONY DELIVERED BY
JIM SIMS, PRESIDENT

AUGUST 7, 1990
LOS ANGELES, CALIFORNIA

3550 Wilshire Boulevard
Suite 300
Los Angeles, CA 90010

Good morning. My name is Jim Sims and I am President of Commuter Transportation Services, Inc. (CTS). We are the oldest and largest commute management company in the country. We represent more than 12 million people in the four county Southern California area and currently serve more than 3,000 major worksites.

CTS advocates using TDM to make the best use of the existing transportation system, rather than invest in costly capital improvements. TDM works by managing vehicles, rather than people, that use the transportation system. TDM strategies:

- increase vehicle occupancy and efficiency through carpooling, vanpooling, high occupancy vehicle (HOV) lanes, park-n-ride lots, parking management and other techniques.
- increase mass transit use.
- decrease the need to commute especially during peak hours through telecommuting from home or a satellite work center, compressed work schedules, staggered work hours, biking, and walking.

In addition to maximizing the capacity of our streets and highways, TDM provides other significant benefits.

- **TDM is cost-effective.** In FY 1990-91, our efforts will reduce vehicle miles traveled (VMT) by 596 million vehicle miles, 15,348 tons of vehicle emissions, and the consumption of 30.7 million gallons of gasoline. By comparison, our annual operating budget of $6.5 million would buy 1,000 feet of light rail, 121 feet of metro rail, and 343 of a four-lane highway.

- **TDM is less disruptive.** The wear and tear on streets and highways results in construction and maintenance interruptions, which is rarely the case when implementing TDM strategies. These interruptions to the transportation system threaten the economic strength that the system was designed to promote.

CTS recently conducted its second annual survey on the state of the commute in Southern California. In comparison to our 1988 survey, a number of alarming trends have occurred:

- Increasing Commute Times

  The average home-to-work trip remained about the same distance from 1988 to 1989 (15.8 and 16 miles, respectively). However, the time required to make that trip increased by 10 to 15 minutes.

- Longer Rush Hours

  More commuters are traveling during what were formerly off-peak hours. Twenty-eight percent are now arriving at work before 7:00 a.m. compared with only 15 percent during 1988. For the drive home, 13 percent now leave work after 7:00 p.m. compared to only 8 percent in 1988. While commuting during off-peak hours may be reducing individual commute times, it is lengthening the amount of time local freeways are congested.

- **Pessimistic Views**

  Not surprisingly, 67 percent feel freeway traffic is worse than one year ago. In our 1988 survey, 72 percent felt the same way.

However, a number of positive signs have also emerged from the 1989 survey:

- **Increasing Awareness of Employer-sponsored Transportation Programs**

  Employee awareness of employer-sponsored transportation programs increased between our 1988 and 1989 surveys. An increase in services offered by CTS to employers are believed to be partially responsible.

	1988	1989
Flexible Work Hours	32%	42%
Ridesharing Information	14%	28%
Carpool/Vanpool Information	8%	26%

- **Increasing Likelihood to Try an Alternative Mode**

  There is clearly more interest in trying carpooling and vanpooling. The interest in carpooling jumped from 26 percent in 1988 to 37 percent in 1989. Similarly, interest in vanpooling increased from 13 percent in 1988 to 24 percent in 1989. Taking public transit was considered by 12 percent in 1989 compared to only 6 percent in 1988.

Based on our findings from the 1988 and 1989 surveys, CTS makes the following recommendations:

1. In response to the willingness of commuters to try alternative commute modes, government should enact laws and policies that encourage ridesharing and other trip reduction strategies. Currently, the federal tax code actually encourages employees to drive alone by treating parking subsidies more favorably than other employer-provided commute benefits.

   For our part, CTS will expand its public outreach efforts to assist commuters with their transportation needs and persuade them to use an alternative to driving alone. If all commuters left their car at home just one day a week, that would mean a reduction of 2 million vehicles and the elimination of almost all traffic congestion.

2. Business must take the lead to improve mobility to ensure the continuation of Southern California's vigorous economy. Many of the programs that have already been implemented by employers, such as telecommuting, guaranteed ride home, and compressed work weeks, can be started and maintained at very little cost, and benefit not only participating employees, but the region as a whole.

Thank you for the opportunity to share the findings of our 1989 Commuter Survey. We believe it offers valuable information that can be used to better manage our transportation system and meet ever-changing commute needs.

Statement by Nick Patsaouras, Board President of the Southern California Rapid Transit District before the Senate Subcommittee on Housing and Urban Affairs, August 7, 1990

Chairman Cranston and Members of the Subcommittee, I want to thank you for coming to Southern California to seek our views on the Federal Government's role in congestion relief, project oversight and grant administration. Although I would prefer to concentrate on the subject of congestion relief, as it is of utmost importance to the continued success of this urbanized region, we have been asked to provide observations on the more specific questions of the UMTA oversight process, especially with regard to the Los Angeles Metro Rail Project and the many Federal UMTA grants we receive. Since you have requested that we keep our testimony brief, I will address these specific questions, and touch briefly on the larger concerns of the region relating to next year's reauthorization of the Surface Transportation Act.

First, I would like to compliment the current Urban Mass Transportation Administration officials on doing a fine job - they are proving to be responsive and flexible. I would like to add that, if anything, UMTA is significantly understaffed and thus not as responsive as even they would like to be. The primary issues I raise here, however, are with past administrative policy and do not reflect on policies of the current administration.

Rail Oversight and Grant Administration

As of July 1, 1990 the Southern California Rapid Transit District transferred all rail design and construction management to the Los Angeles County Transportation Commission, and is essentially no longer in the rail construction "business". All responsibilities, except for the fiduciary responsibility as grantee for MOS1, were transferred, as set out in a mutual agreement signed by the SCRTD and the LACTC in December of 1989. As a result of nearly a decade of experience in relating to UMTA on the project, however, SCRTD can provide constructive suggestions to improve the federal administrative and oversight process with regard to rail starts. These suggestions include:

- The total grant amount should be adjusted to account for UMTA delay prior to final UMTA approval, or the project will start out with a schedule slippage and cost overrun from day one. The time lapse between the grant application submittal and UMTA's final approval can be significant, such as the initial sixteen month delay incurred by Metro Rail. This delay cost local taxpayers millions of dollars.

  The practice of regularly adjusting the budget for a large public works project is not an unusual practice for the federal government. It is done routinely for Federal highway projects.

- UMTA' Project Management Oversight (PMO) function should be housed within the grantee's organization. This administrative restructuring would eliminate the kind of detrimental situations created at SCRTD when project management was in the midst of resolving claim disputes while the PMOC continued to interact with the very contractors involved in the claim disputes. Furthermore, UMTA's PMOC served a duplicative role to SCRTD's internal investigative and oversight unit. Both UMTA and the grantee should work together to maximize the investment in assets.

  UMTA could establish a certification process to allow review and oversight functions set up internally by the grantee to fulfill the Federal requirements for a PMOC. For the Metro Rail project alone, this would have saved $3.5 million, with no loss of benefit to UMTA or the public.

- Explore ways to eliminate costly duplication of effort in the environmental review process. Currently an applicant must undergo both state and federal environmental review. The Federal government should enable states to be certified as meeting the National Environmental Protection Act (NEPA) requirements so that grantees would not need to go through duplicative state and federal steps that add cost and delays with minimal public benefit.

Bus Grant Administration

I will now briefly address the subject of UMTA grant administration from the perspective of the regional bus and rail operator.

SCRTD currently serves 1.3 million riders daily, covering over 315,0000 miles per day throughout the region. We accomplish this by over utilizing our buses to try to meet the demands of one of the most underserved transit markets in the country. Tables A and B illustrate the situation we find ourselves in; The District uses its buses to carry more passengers more miles than any urban transit operator in the United States. To accomplish this task SCRTD has its buses in service more hours per day than any urban transit operator except Chicago. Specifically, the District utilizes a bus on the average of 9 1/4 hours per day, 365 days per year.

The factors described above, as well as other environmental factors under which SCRTD functions, raise issue with the flexibility of UMTA's capital grant program requirements for bus purchases. The regulations are being interpreted very strictly by DOT's Office of Inspector General (OIG), and even though UMTA is utilizing the flexibility that is written into the regulations, the OIG is not willing to allow flexibility for factors such as; whether the operator is serving a large urban population with a myriad of transit needs, versus a small suburban commuter population, whether the operator is operating in traffic conditions of severe congestion, and whether the region must contend with stringent air quality standards which necessitate experimentation with unproven technologies.

Congestion Relief and Surface Transportation Reautnorization

Not only is SCRTD extremely productive, but it is a vital solution to the Los Angeles region's congestion and air quality woes. Public transit is essential to improving our quality of life by reducing the strain on our current transportation infrastructure. In addition, public transit has demonstrated its effectiveness during times of crisis. No where was public transit's role more evident than in the Bay Area following the 1989 San Francisco earthquake. Furthermore, Iraq's recent invasion of Kuwait reminds us of our reliance on foreign oil sources and brings back memories of long lines at the gas pumps.

The federal government needs to recognize transit's vital role, rather than continually cutting away transit funding. I cannot overemphasize the importance of Section 9 and Section 3 funds to SCRTD. The Administration's proposed elimination of Section 9 operating funds of nearly $48 million to Los Angeles County, would result in a nearly eight percent reduction in SCRTD's annual operating budget. Loss of these funds would translate into a fare increase of over 23 percent or a greater than 10 percent service reduction. We are grateful to you Mr. Chairman, your committee, and to Congress for restoring these funds in the 1990 budget.

I am sure you are well aware of the sweeping air quality reforms imposed by our local Air Quality Management District in conformance with EPA requirements. These measures increase the required transit mode split for workers in Los Angeles County from 9 percent to 25 percent by the year 2010. In order for the South Coast Air Basin to meet the mandated mode split requirement of the Air Quality Management Plan, we estimate that transit services will need to be tripled by 2010. Well over two-thirds of the additional service will be provided by bus transit, even if all rail lines planned for implementation by 2010 are completed by then. This will require an increase in the peak bus fleet from nearly 2000 buses to almost 5000 buses. Based upon these requirements, the total unfunded operating and capital needs over the next twenty years is estimated to be $11.2 billion for SCRTD's service area.

These requirements will soon be affecting the entire country. As you know, two major pieces of Legislation developed during this session of Congress will materially add to the burdens and responsibilities of the transit operators throughout the nation. I speak, of course, of the Clean Air Act, now under deliberation by the Conference Committee, and the recently signed Americans with Disabilities Act.

SCRTD is currently working with other large operators across the country to estimate the cost impact of these two major pieces of legislation. As you know, Mr. Chairman, there is precedent for the principle of having the federal government assist in meeting environmental costs mandated by federal law. One need look no further than the Clean Water Act which has made some $55 billion in construction grants to state and local entities since 1972.

SCRTD is also striving to relieve congestion in the region through improving the quality of basic transit service. The SCRTD recently took two significant actions aimed at improving transit service to the public and challenging the District's employees to strive for a higher level of public service. I am referring to the adoption of a Transit Riders' Bill of Rights and an On-Time Guarantee Program. These program's were implemented because SCRTD bus riders have a right to a commitment to quality service. The SCRTD Board and management staff are fully committed to the success of these programs and to making public transit the "mode of choice." Unfortunately I do not have the time to provide you with all the details of these two innovative programs, but I will be more than happy to provide them for the record.

I realize the Surface Transportation reauthorization process is in a very preliminary stage at this point. I imagine that you will be spending considerable time and effort next year in developing a transit component that makes good sense for the country. SCRTD offers its assistance to you in any way that you find useful.

I thank you Mr. Chairman and members of the Committee.

TABLE A

PASSENGER MILES PER ACTIVE VEHICLE

Twenty Largest Urban Bus Operators – 1988

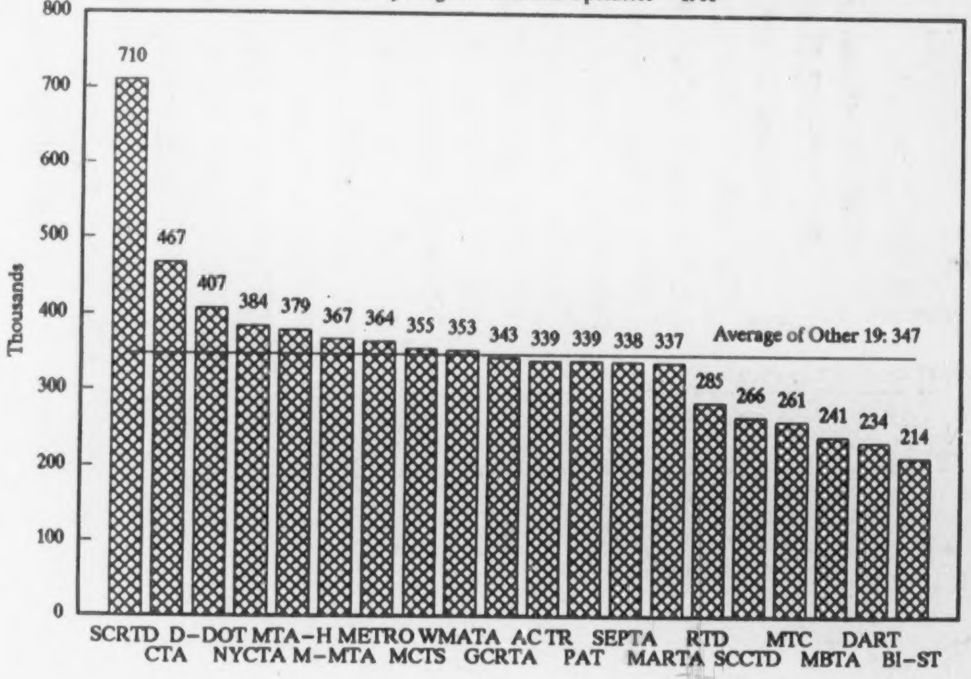
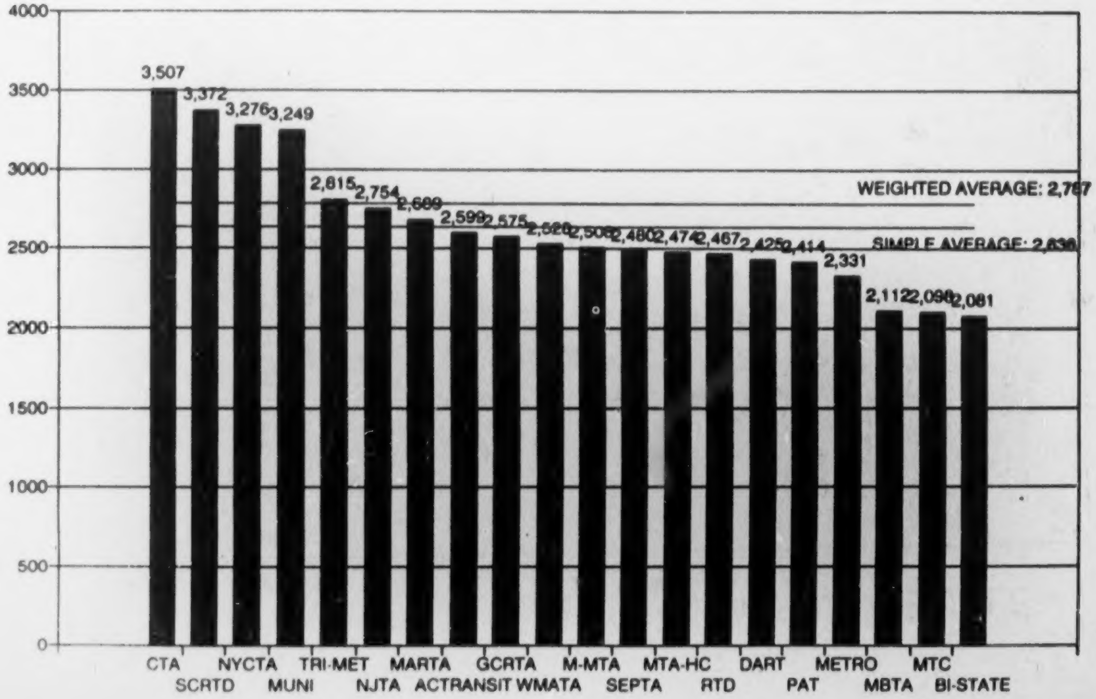


TABLE B

ANNUAL VEHICLE HOURS PER ACTIVE BUS
1988



WHAT KIND OF ADDITIONAL BURDENS ON MASS TRANSIT DO YOU ANTICIPATE AS A CONSEQUENCE OF THE CLEAN AIR AMENDMENTS?

The additional burden can be seen in the attached cost impact survey results. The survey encompassed 14 of the nation's largest transit operators. The operators completed a 20-page comprehensive survey showing the cost impact of changing their fleet, fueling facilities, and fuel to methanol, compressed natural gas, or clean diesel. Upon completion of the survey the properties met in Washington, D.C., to compile the data. The results show that mass transit will be dealt a serious hardship if clean diesel does not remain an option, and if additional funding is not made available to expand and implement this program.

HOW COULD FEDERAL MASS TRANSIT POLICY HELP ACHIEVE THE GOAL OF THE CLEAN AIR AMENDMENTS, NAMELY, HEALTHY AIR IN EVERY REGION OF THE COUNTRY?

The goal of healthy air in every region in the country can be met if mass transit is made an attractive alternative to the automobile. Single occupant vehicles are one of the main contributors to poor air quality in the major metropolitan areas of this country. Public transit properties can expand service, making mass transit attractive to a wider range of people through increased federal funding.

Increased federal funding will also help public transit properties develop an alternative fuels program. Current funding does not exist to allow public transit properties to develop this program.

Public Transportation must be recognized as a major component of cleaning the air and decreasing congestion on our roads. Federal mass transit policy needs to reflect the commitment to improved air quality outlined in the Clean Air Amendments. Unclogging our freeways is a major aspect of cleaning up the air and improving life in metropolitan areas. The fewer automobiles on the freeways, the fewer emissions in the air. Mass transit can assist in meeting the goals of the Clean Air Amendments if it has the resources to do so. The federal government can help achieve the goals of the Clean Air Amendments through increased funding for mass transit.

IMPACT OF THE CLEAN AIR ACT ON THE TRANSIT INDUSTRY

SUMMARY: PRELIMINARY RESULTS, COST ANALYSIS SURVEY
1990 CLEAN AIR ACT ALTERNATE FUELS/LOW EMISSIONS TECHNOLOGY

During August, 1990, major transit properties in the United States conducted their own survey to determine the prospective costs of the Clean Air Act currently pending in Congress. Transit properties participating in the survey included:

- Milwaukee
- Philadelphia
- St. Louis
- Chicago
- Alameda County, CA
- Cleveland
- Salt Lake City
- Washington D.C.
- Santa Clara County, CA
- Seattle
- Atlanta
- New York City
- New Jersey
- Los Angeles County (SCRTD)

FLEET PURCHASE/REPLACEMENT

The following figures represent the difference between the cost of current diesel buses and the estimated cost (1989 prices) of alternatively equipped buses based on a survey of fourteen (14) of the Nation's largest transit properties representing 20,327 buses and extrapolated to a total National fleet of approximately 39,000 that will be affected by the Clean Air Act. These costs are usually cycled over a ten to twelve year period.

The estimated cost of fleet conversion (new buses) alone from diesel to compressed natural gas (CNG), in accordance with one option under consideration by the Clean Air conferees, for the Nation's bus operators will be as high as

$2,204,675,100

The comparable figure for conversion of equipment from diesel to methanol is

$1,643,815,800

The comparable cost of converting buses from diesel to particulate trap is

$ 454,212,000

FUELING FACILITIES

Conversion to alternative fuels for buses also requires reconstruction/construction of new facilities tailored to dispensing the fuels. Based on the fourteen-property survey, the cost of facilities to the transit industry, including in some districts land acquisition, to accommodate a switch from diesel to CNG is

$ 787,725,000

Conversion of facilities from diesel to methanol is

$1,208,135,740

By contrast, the facility cost to convert from diesel to particulate trap is

$ 0

FUEL COSTS

Annual costs for fuel, based on 1989 prices estimated before the recent impact on costs caused by the crisis in the Persian Gulf, are a year-to-year increase in operating expenditures. Annual increases after fleet conversion from diesel to CNG is

$ 70,446,352/year

Annual fuel increases after conversion from diesel to methanol is

$ 419,054,385/year

The yearly boost after conversion from diesel to particulate trap is

$ 50,804,006/year

Attached are three charts which express these increased costs in percentages. For further information on this survey, contact Rich Davis or Vince Pellegrin, Southern California Rapid Transit District (213-972-5700).

Note: These figures do not reflect durability of equipment, "weight penalties" or losses in passenger capacity associated with conversion. Therefore, equipment replacement costs are not included in these estimates.

September 10, 1990

SHIFT OF EMPHASIS

Our new policy must take into consideration land use, air quality, and economic considerations in moving as many people -- rather than as many vehicles -- as possible. This requires a better mix of transportation methods to enhance the advantages that each one offers.

- *How can federal assistance encourage such a shift of emphasis from vehicles to people?*

The nation's surface transportation is much more costly than it needs to be, in terms of environmental and social impacts as well as dollars, in large measure because ways have been found to bury many of the costs of the automobile in other public and private sectors of the economy.

The national highway/auto system has turned free enterprise on its head. A system that costs progressively more to build and maintain is provided "free" to the user, aside from nominal fees on gasoline, vehicle licenses, etc. We need to reconceive the entire surface transportation system before any more public funds are put into it. We need a freer market for transportation. The excesses of the current system will not be as likely to continue if the user faces more of the actual cost occasioned by his use.

Transportation has three sources of funding: the user, public tax revenues, and "third parties" (e.g., the employer that pays the cost of parking for an employee). A freer choice in transportation will result from greater reliance on user charges, and mode-neutral contributions from the public tax base and from the private third party benefactors of the traveler. The national transportation policy should embrace the idea of the level playing field. If there are subsidies, they should be the same for the users of all modes and variants of transportation.

In the transportation funding triad, the primary source should be the user. While there may be reasons for having the user face something less that full social cost of his travel, user charge structures should not bias mode choices in socially undesirable directions. To the extent that the benefits of the travel are shared (e.g., retailers profit from the travel of their customers), third party participation in financing is legitimate, as long as these subsidies are not mode biased. Where there is a discernible but general public benefit, public tax revenues should be applied under the same neutrality conditions.

Charging the User for Transportation Services

What should be the rationale for charging? The greatest single obstacle to a rational transportation policy is the illusion that highways are free. This has predetermined the runaway growth in auto traffic, because the users get the benefits and others are stuck with the bill. There needs to be a consistent structure of user charges for all transportation, including the highway system itself. Charges should be determined by the costs imposed on the service provider and on society by the user.

Yet, even if transit subsidies were to rise to the level given to auto drivers, transit suffers from another disadvantage, in the structure of the charges. Measures that shift the balance from the fixed to the variable costs of driving should be emphasized (e.g., parking fees, gasoline surcharges, insurance by miles driven).

Currently, prices are not efficient in either the transit or auto user segment of transport. For example, congestion pricing is almost nonexistent in the auto segment and grossly calibrated where it exists in transit. All forms of transportation should be allowed to have their prices reflect the generally higher costs of peak period facility provision and maintenance.

The mechanisms of collecting charges. The physical means of collecting charges for transportation have had a major determining role in the transportation systems that have evolved. Having nothing less cumbersome than tollbooths for highways was a powerful incentive to avoid tolls altogether. The limited fare media for transit prohibited fare systems sophisticated enough to reflect actual costs of providing service.

Progress now being made in development of fare and toll mechanisms can be hastened through governmental R & D support. The goals could be universal debit and credit cards for all modes of transportation. The result could be more efficient use of existing and new resources.

Public Funds for Transportation

Transit managers perpetually cycle between adding service to meet demand and cutting back service to cut costs, with little time left over for making anything better. This stems from an inability to do long range financial planning, because the public revenue component of transportation funding is undependable.

The most legitimate funding role of government is for major construction projects, in which benefits accumulate over such a long period that identities of the beneficiaries are too difficult to determine precisely. Such situations include the construction of major highway or transit facilities, and the acquisition of transit vehicles. To the extent that such government tax sources are limited, they should be reserved for capital projects, letting user charges and third party subsidies fund operations.

Government funding responsibilities should be divided more reasonably between Federal, state, and local units. The key is the governmental boundary and the lengths of the trips that are served. If 20% of the trips passing along a facility are interstate trips, then something like 20% of the funding responsibility would legitimately be Federal. This is not the way things work today.

There also needs to be a correction on the revenue side. Interstate highways, which carry

45% of the vehicle miles, are funded through a gas tax that is generated largely be travel over local streets. Changing funding allocation formulas could correct this.
A more fundamental change, one that would foster greater local autonomy, would be to add to the federal government's role of granter, a banking role, in which States could obtain their contribution of user fees, or additional funds if they wished to pay interest.

What should we do about the Federal Highway Trust Fund? Replace the Highway Trust Fund with a National Surface Transportation Bank, fed by user-charge revenues, much as the Trust Fund is today, with each contributing state having a separate account containing the user revenue from that state.

As with other banks in the United STates, states with accounts could borrow from others' accounts. However, they would bid in terms of interest rates for the available cash, and the interest could be credited to the loaning state's account. That, in essence, would allow those who wanted to delay projects to leave the money in the bank, drawing the highest interest rates available. It would also allow those who have projects with a very high benefit-cost ratio to invest in those projects, and as a result of getting the benefits, pay back those who lent them money.

In such a scheme, nobody would be hurt and everybody should gain. That is much different from the mechanism by which we now arbitrarily transfer funds from one locality to another. Sometimes those who procrastinate in investment may get more federal funds simply because they have a poorer system or a higher benefit-cost ratio or because the monies are allocated on the basis of an arbitrary formula.

The bank could initially be funded with the balance from the Highway Trust Fund. If the bank were outside the federal government, the federal budget would be reduced by the annual expenditures from the Trust Fund. The arbitrary and probably economically wasteful federal allocation formulas, expenditure categories, and matching ratios would no longer exist.

Third Party Funding

The more that the transportation systems are financed through direct user charges, the more economically efficient they will be. To avoid creating excessive personal burdens, funding support of the transportation user can be provided by third parties: benefactors or sponsors of the individual traveler. Such a system of private support has long existed for the automobile driver. The point is not to gain more total transportation subsidy through this means -- it is considerable already -- it is to make sure that the sponsor contributions are granted even handedly, without bias as to mode of travel. Just as important, there must be assurance that sponsors be available for the people who today make up much of transit's limited market (e.g., employees, handicapped, elderly). Government agencies which have responsibilities for the welfare of these people must have the financial resources to support their clients' travel needs.

- *How can we improve federal transportation policy to allow states, localities, and regions the flexibility to choose the most appropriate mix of transportation?*

Funding for highway and transit projects, now allocated and administered separately within the USDOT, could be provided in combined Urbanized Area block grants. This would give greater flexibility to local areas to use the total resources in a way that best fits local needs. The drawback to this approach, perhaps minimal however, is that Federal level policy emphasis on specific modes might no be as readily controlled when the decision is at the local level.

LOCAL ORDINANCES

A few local governments have adopted ordinances that reward employers who establish company transit programs.

- *In what ways could you support significant federal efforts and incentives to encourage other local governments to adopt similar laws without interfering in their respective authorities?*

To answer, we will take the risk that the meaning of the question is better expressed without the words "In what ways".

Most federal efforts tend to interfere in some way with local authority. Exceptions to the rule are programs that are informational in nature: R&D, federal sponsorship of data collection, analysis and dissemination of information (whether or not subject programs involve federal participation). Dissemination of information includes sponsorship of conferences, with funds available for attendance, and facilitation of networks.

R&D projects need to be well thought out, with attention given to the measurement and analysis at the outset. Projects should be numerous, with local innovation encouraged, and overlapping or duplication permitted or even sanctioned.

Federal incentive fund programs are seldom regarded as interfering in local prerogatives, even though they are expressly aimed at influencing what is done at the local level. For example, a generally accepted goal is to get more people out of cars and into transit. If federal incentive funds were distributed according to formula reflecting attainment, without prescribing the means, interference would be minimal. In this example, a Federal incentive fund would be distributed to local government on the basis of population weighted by annual per capita transit trips. A high success rate could be achieved in many different ways, so there would be full local program flexibility.

- *To what extent could these types of ordinances become a much larger part of a national transportation policy? Or do they only have a limited capacity to help ease congestion?*

First, the goal of both local and national programs should be to encourage personal choices to use transit. While the programs will not be successful if they penalize employers, the goal is the personal choice itself. And it is not just the choice of travel to work, since less than half the travel is work related.

Local ordinances that neutralize incentives to drive alone are likely to have suitable counterparts in Federal law. The Federal Income Tax code, as it relates to travel-to-work, is the most glaring example of a federal disincentive to efficient travel. At the local level, government policies and practices that mandate parking subsidies are the most detrimental. It is the goals that ought to become a much larger part of local and national policy. The primary goal of both should be to assure that people face travel choices that are neutral in terms of government tax and subsidy practices.

The capacity to ease congestion is limited if programs, whether national or local, are oriented only to transit subsidy. Ordinances and programs have to pay attention to the massive subsidies that have habitually been provided to the auto user, and rectify the imbalances, if they are to reduce congestion.

J.W. 9/27/90

RESEARCH AND DEVELOPMENT

As public transit is used more and more to help solve problems of congestion, air quality, and productivity, technology will have to expand the current capacity of this mode of transportation.

HOW CAN THE FEDERAL GOVERNMENT MORE EFFECTIVELY ASSIST THOSE TECHNOLOGICAL ADVANCES THROUGH BETTER TRANSIT SERVICES?

The federal government could help by expanding its research and development efforts and funding, especially in the area of clean fuel and low emission technologies. The most promising technologies are continuing development; however, operational costs are sure to be greater than the existing diesel technology that is used. These costs increases are of major concern for future procurement and operation.

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Commuter Computer

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October 29, 1990

The Honorable Alan Cranston
Chairman
Senate Subcommittee on
Housing and Urban Affairs
SD-535 Dirksen Senate Building
Washington, DC 20510

Dear Senator Cranston:

Enclosed are our comments to the questionnaire following the Urban Mass Transit Act reauthorization field hearings.

We thank you for the opportunity to participate in the reauthorization process and hope our comments are helpful. Please call if we can be of further assistance regarding commuter mobility issues.

Sincerely,

JIM SIMS
President

JS:hi

Attachment

1. RESEARCH AND DEVELOPMENT

How can the federal government more effectively assist those technological advances through better transit services?

The federal transportation policy should provide funding for demand management research. TDM is a relatively new way of resolving mobility and environmental problems and, therefore, data is sometimes incomplete or not comprehensive enough to provide a full disclosure of its potential.

As a commute management company, CTS is not particularly well-versed in the technological aspects of transit research and development. We suggest contacting the Los Angeles County Transportation Commission (LACTC) and/or the Southern California Rapid Transit District (RTD) for further information.

2. SHIFT OF EMPHASIS

How can federal assistance encourage such a shift of emphasis from vehicles to people? How can we improve federal transportation policy to allow states, localities, and regions the flexibility to choose the most appropriate mix of transportation?

In several areas, federal transportation policy is inconsistent with its efforts to clean the air. We believe the underlying problem is that federal transportation funding is inflexible and actually encourages independent vehicle use. We offer the following recommendations:

- Make federal highway dollars as available for demand and system management projects as they are for capital projects. Federal highway funds should not be predisposed for only certain types of projects. There should be no inducement for selecting transportation projects for reasons other than absolute effectiveness.

- Change the federal tax policy whereby all employer-provided commute benefits are treated in a comprehensive, nondiscriminatory, and equitable fashion. Currently, employer-provided parking is considered a tax-free benefit. In contrast, an employer may provide only up to $15 per month tax-free toward a mass transit fare. A penny more results in the entire subsidy to be included in the employee's taxable income. There are different rules for employer-provided vanpool benefits.

  In effect, federal tax policy encourages employers to provide parking and discourages them from subsidizing alternative commute modes because of administratively burdensome and confusing policies. To our knowledge, federal tax policy may be one of the most important factors that determines commute mode, and should be crafted in a way that takes advantage of, rather than hinders, private sector initiative.

- Include in the federal transportation policy capital improvements in urban areas that encourage or benefit carpooling, vanpooling, and mass transit use. We are referring to high occupancy vehicle (HOV) facilities and park-n-ride facilities. HOV facilities are a cost-effective means of increasing system capacity while reducing tailpipe emissions (the number one source of pollutants in Southern California) and unnecessary gasoline consumption.

  According to Caltrans, the El Monte Expressway on Interstate 10 carries more than 8,700 persons over a two-hour afternoon peak period. It would take almost 2.5 regular mixed-flow lanes to serve an equivalent number of commuters. Granted, HOV facilities may not be the most appropriate strategy in every instance, but it should be part of the menu of consideration.

3. CLEAN AIR AMENDMENTS

What kind of additional burdens on mass transit do you anticipate as a consequence of the Clean Air Amendments? How could federal mass transit policy help achieve the goal of the Clean Air Amendments, namely, healthy air in every region of the country?

CTS offers the following suggestions on how the federal mass transit policy can be used to help achieve federal, state, and local clean air goals.

- Make federal highway dollars as available for demand and system management projects as they are for capital projects.

- Consider TDM alternatives, prior to increasing capacity through capital improvements.

- Provide research funds to determine the cost-effectiveness of TDM on reducing air pollution.

- Provide funding for farebox conversions to ease travel among independent transit companies and thereby encourage transit use.

- Provide funding for clean fuel vehicles, which are being required by clean air legislation sans funding.

4. LOCAL ORDINANCES

In what ways could you support significant federal efforts and incentives to encourage local governments to adopt similar laws without interfering in their respective authorities? To what extent could these types of ordinances become a much larger part of a national transportation policy? Or do they only have a limited capacity to help ease congestion?

CTS supports the general premise of the federal Clean Air Act that allows states and local agencies to establish specific attainment strategies to meet federal standards. However, we believe changes to federal transportation funding and the federal tax policy are necessary to enhance local government efforts.

In California, cities and counties will soon begin developing their Congestion Management Plans (CMPs). These CMPs were part of the gas tax package that voters approved this past June, and are designed to better link transportation and land use planning to reduce urban traffic congestion and enhance the implementation of local clean air plans. The CMP process may be a future strategy at the federal level once we determine its effectiveness on mobility and air quality in California.

REAUTHORIZATION OF THE URBAN MASS TRANSIT ACT

WEDNESDAY, AUGUST 8, 1990

U.S. Senate,
Subcommittee on Housing and Urban Affairs,
Committee on Banking, Housing, and Urban Affairs,
San Jose, CA.

The subcommittee met at 9:45 a.m., in the county of Santa Clara Social Services Building, Senator Cranston (chairman of the subcommittee) presiding.

OPENING STATEMENT OF SENATOR ALAN CRANSTON

Senator Cranston. We will begin the hearing, please.

I welcome all of you who are here today, most of all, the panelists who are going to help us figure out what we should do about our transportation and related issues. I thank all who are present.

The Senate Housing and Urban Affairs Subcommittee, which I chair, is responsible for the oversight and authorization of Federal mass transit programs. This is the first of a series of Senate hearings on the reauthorization of the Urban Mass Transit Act.

The original legislation enacted over 25 years ago, established a Federal commitment to public transportation. At the time, transit was a failing industry facing declining ridership, unsustainable labor costs, and skyrocketing fares. Much was accomplished since then; but obviously much more must be done now.

Today, mass transit is, in many ways, a vital and mature industry that reflects the many successes of a committed public/private partnership. Federal, State, and local governments, along with private interests, have provided financial support in many communities to revitalize and develop mass transit systems.

But, while great strides have been made in recent years, our country now faces even more difficult transit problems. Among them are population growth, decaying air quality, and intolerable congestion on our highways and roadways. It is time to reaffirm our Federal commitment to transportation and build on the substantial progress that has been made in these last 25 years.

Our hearing today will focus on two fundamental issues that must be addressed before drafting a new Federal public transportation policy. The Government Accounting Office will present a preliminary report, which I requested, about the Urban Mass Transportation Administration's performance and integral problems the agency is experiencing with regard to oversight, funding allocations, grant agreements, and regulatory requirements.

We will also consider how UMTA can best meet the country's increasing mass transit needs. I am particularly interested in hearing the suggestions of regional transit agencies as well as the private sector with regard to congestion management and how successful local programs could be implemented at the national level.

Three years ago, I initiated a massive, nationwide effort to address our appalling lack of affordable housing. Nowhere is the housing problem more obvious than right here in California. I set out to draft and pass a bold, new Federal housing policy to help provide the affordable housing that our country needs now and for the future.

Just a few weeks ago, the National Affordable Housing Act was passed by the Senate with an overwhelming vote of 96 to 1. There is obviously a direct link between inadequate housing and inadequate transportation. The lack of affordable housing near the workplace causes so much time wasted and congestion and pollution.

Today I am announcing that I am making a similar effort to shape a national public transportation policy that focuses on our needs now and for coming decades. I intend to introduce appropriate legislation next year after I invite leading organizations and experts in the mass transit field to submit recommendations by December 10; these will be published by the subcommittee. I will then convene a conference of the country's top mass transit experts at the U.S. Capitol to review the recommendations. I will also convene a series of conferences in California focusing on the unique transit problems that we face here.

Finally, the Housing Subcommittee will hold an extensive set of hearings in preparation for this major new mass transit legislation. That legislation will have to be enacted by October of next year when the present authorization expires. It must reaffirm the Federal Government's responsibility for developing modern transit systems. State and local governments simply are incapable of financially mounting effective solutions without adequate Federal support.

A transportation policy that continues to rely heavily on automobiles forces us to depend upon foreign oil. We are already experiencing almost instantaneous increases in oil prices due to Iraq's Kuwait invasion.

Our Federal transportation system must be incorporated into our long-range national energy and security policies. Our productivity, and our international competitiveness suffers when the Federal Government fails to assist States and localities with their transit problems.

Japan and Western Europe invest heavily in ultramodern mass transit systems that get workers to and from work efficiently and swiftly. Meanwhile, Americans are forced to sit for hours on congested roadways.

I am going to give you some rather startling statistics from a 1983 Federal Highway Administration study: 11 percent of all labor force work hours are spent on the highways. That translates in our State to 300,000 hours lost each day due to traffic gridlock. The situation is obviously getting worse. That was 7 years ago. Over the next 20 years, freeway congestion will increase more than 400 percent while congestion on other roadways will increase by 200 percent.

The Transportation Research Board has reported that the annual delay and travel time will increase by 5.6 billion hours, excess fuel consumption will increase by 7.3 billion gallons per year, and total cost to travelers will increase by $41 billion per year. We plainly must take very vigorous action to prevent those statistics from becoming a reality.

Right now, nearly 6,000 miles of California main roads are operating at or near capacity and gridlock. A report earlier this year states that growing traffic congestion costs nearly $17 billion for California drivers alone. This amount is expected to triple in only 10 years. When workers cannot get to jobs and goods cannot get to market, everybody is hurt.

Equally troubling is the increasingly harmful effect on our physical health. Automobiles are the largest source of smog in urban areas. California has the unfortunate distinction of having the most severe air quality problem in the country with 50 percent attributable to automobiles. We experience 75 percent of all the nation's smog level exposure that is above the national standards.

The California Air Resources Board estimates that smog is creating crop losses of over $300 million in our State. Like the economics of congestion, this hurts not only California but, also, other parts of the country that rely on California produce.

The Bay Area's Metropolitan Transportation Commission has been a leader in planning the integration of a mass transit network. The MTC should be applauded for successfully balancing the escalating transportation needs of the nine local counties that it represents. I will continue to work and support the Federal assistance for the necessary transit systems ranging from BART, in the north and east bay, to the Tasman Corridor project here in Santa Clara County.

Let me finally say this: If we are to continue to expand the successes in this area, a meaningful and long-term Federal role is absolutely essential. 35 years ago, our country undertook a monumental effort to construct an interstate highway system. That program was a great success, one of which we all have a right to be proud.

But highways alone no longer meet our transportation needs; we must now direct our efforts with equal ambition and commitment toward providing a successful mass transportation system that will ensure the health of our environment and the economic soundness of our urban and suburban centers.

The UMTA reauthorization and the completion of the interstate highway system gives us a tremendous opportunity to reevaluate the ways that the Federal Government can help address our problems of congestion, pollution, land use, and dependence on foreign oil. This is the start of that process.

I look forward to working with our witnesses today, on into the future, and with others throughout the State to take full advantage of this landmark opportunity. So let us begin today's discussion.

The way we will proceed is that the panel that is now with us will start with brief opening statements. If you have prepared statements, the full statement will appear in the record of this hearing. I would like to ask each of you to summarize your view in not more than 5 minutes. We will then have some discussion and I have some questions I want to ask you. We will then move on to the next panel.

Our first person to testify is Rod Diridon, a long-time friend and partner of mine in many enterprises, a man who has done some very effective work on transportation. He is on the Metropolitan Transportation Commission and is also a Supervisor in Santa Clara County.

Rod, we welcome you and are eager to hear your views.

STATEMENT OF ROD DIRIDON, SUPERVISOR, SANTA CLARA COUNTY BOARD OF SUPERVISORS; CHAIRMAN, METROPOLITAN TRANSPORTATION COMMISSION, ACCOMPANIED BY WILLIAM R. LUCIUS, CHAIRMAN, LEGISLATION AND PUBLIC AFFAIRS COMMITTEE, METROPOLITAN TRANSPORTATION COMMISSION

Mr. DIRIDON. Senator, thank you very much for coming to Santa Clara County and I am pleased to be able to offer you a welcome from the Board of Supervisors and from all of the folks in the region. I get to wear three hats today: I am chair of the local county transit agency board of supervisors, as well as chairing MTC, and I also will be making a comment or two as representing the Mass Transportation and Railroads Committee of the National Association of Counties which I also have the honor of chairing.

And, for you, it is coming home; and we know that and we are very proud of that, too.

I will read through very briefly the short statement that I have and then stand for questions as long as you would like. But, before doing that, I would like to remind you that your old friend Bill Lucius is here; Bill is the senior member of the Metropolitan Transportation Commission and our guiding light in so many ways. He has been willing to sit by me and give me the elbow when I say something wrong.

Bill Hein, the executive director of the Metropolitan Transportation Commission is here in the audience and will act as the technical resource in case we get into trouble and need to be bailed out by outstanding staff.

I will proceed on through the statement now in rather a summary form and ask that it be submitted, as you have indicated that it will be, into the record.

Transportation is an overwhelming concern to the citizens here in the Bay Area, as you know. If we look at the facts, it should be no surprise that California voters approved the increase in the State gas tax this past June. Between 1980 and 1988, traffic on all roads in the State increased 55 percent and, in 1988, California motorists wasted nearly 1.19 billion hours sitting in traffic gridlock. If current congestion trends continue, potentially doubling by the year 2000, the average California driver will waste nearly $3500 annually in fuel costs and sit in traffic the equivalent of 7 continuous days of work per year. The State's urban and suburban drivers know these problems only too well and experience them on a daily basis.

In approving a new gas tax, Californians revealed their frustration with this transportation status quo and a willingness to support the changes necessary to bring about improvements. I should mention that, in addition to the recent statewide action, each of the urban counties in the Bay Area have adopted two separate one-half-cent sales tax increases to fund transportation improvements. Clearly, it is only a matter of time before other regions in the country confront the same transportation challenges we now face.

With the expiration of the 1987 Surface Transportation and Uniform Relocation Assistance Act and the completion of the Federal Interstate Highway System in 1991, a major opportunity is at hand to shape a new surface transportation policy which is responsive to the present and future needs of California and the Nation. In considering how a new Federal surface transportation policy will look in the post-Interstate period, we endorse broad goals relative to international competition, a vital domestic economy, a healthy environment, safe systems, and a flexible and stable funding. The focus of the transportation investments should be on preservation of interstate systems and development of systems that recognize that urban and suburban mobility and rural access are key elements of an effective national transportation network.

The Metropolitan Transportation Commission has been an active participant at regional, State, and national level in efforts to develop a vision for the post-Interstate period. We participated, for example, as part of the 12 public and private interest groups in Washington, D.C. known as the Transportation Alternatives Group, or the TAG, that developed consensus statements designed to advance the next reauthorization. We also developed our own principles to guide post-Interstate policy. Those have been provided to you in an attached document and I will summarize them now.

The first is an increase in the Federal gas tax dedicated to sustaining and improving the transportation improvements on a systems basis.

The second is the flexible use of Federal transportation funds and a predictable, formula-based funding distribution which ensures, to the extent possible, that funds are distributed equitably to both metropolitan and rural systems.

And finally, the establishment of an emphasis on a system, not just individual projects, to address congestion and access problems with uniform Federal matching requirements for investments in both new or expanded highways and transit facilities.

Right now, as you know, the matching requirements for highway funds are very small relative to the 50 percent match now required for mass transit funds by recent UMTA declaration.

I should note here, in regard to our systems approach, Senator, that the Metropolitan Transportation Commission does have a systems master plan that has been approved by all of our mass transportation members, all 24 mass transportation agencies in the region, by all of our counties, and by the Metropolitan Transportation Commission, and by the State Transportation Commission in part. That master plan includes for BART extension, about nine light-rail extensions, and various other transportation improvements. We are very proud of that consensus plan; but it means nothing unless we have funding.

We also have a local master plan in Santa Clara County which has been approved broadly and I will provide you copies of that in this document. It describes our intent in terms of a BART extension, three light-rail extensions, Cal Train extensions and upgrades, and other kinds of projects that are pending in the future. Again, these are consensus plans that have been approved by all 15 of our cities by the transportation agency, the Board of Supervisors. We are ready to go ahead, all we lack is funding.

In MTC's view, a systems approach is the best hope for addressing the congestion and access problems we face now and in the future. Comprised of major highway and transit routes, these systems would be defined through the exiting Federal, State, and local partnership and serve as the basis for investment decisions.

The systems approach would recognize the complementary and interdependent function of Interstate freeways, State highways, local arterials, and major transit lines. The systems approach would transcend the ownership approach to planning which currently exists. The public does not know whether they are on a State highway, a county road, or city street; they only want the system to work. We need to identify the most effective investment anywhere on the system irrespective of ownership and pursue that investment.

The existing State and local decision process described in Federal law provides a basis for determining how planning and funding of decisions would actually be made under the metropolitan/rural access systems approach. Where a well-established metropolitan planning organization, such as the Metropolitan Transportation Commission of the Bay Area, exists, it could assume a leadership role in the State and local partnership. In other cases, the State would play the leadership role so long as it focused on the metropolitan or rural access systems. The Federal Government has demonstrated its ability to get all States to focus on delivery of a single system such as the Interstate system. We believe that a similar focus on metropolitan and rural access systems development can now be achieved.

In order to achieve our transportation goals in the post-Interstate era, a strong Federal, State, and local funding partnership must continue to be strengthened by increasing funding at all levels. I mentioned earlier the increase in funding at both the State and local level here in California. The Federal leg of our traditional three-legged stool has been very weak. As you know, a three-legged stool will not stand up if there is only one leg missing. Right now, our Federal leg is virtually missing and we hope that, as you go into the interstate reauthorization, partly the surface transportation re-authorization, we hope that you will strengthen that third leg and allow the stool to support our transportation requirements nationally again.

We certainly hope, and have as a standing policy, that a gas tax increase occurs at the Federal level and that that tax be used only for transportation and not for budget balancing.

In addition to establishing dependable transportation funds, we need Federal policies that allow the State and local partnership to decide where to invest their limited Federal, State, and local transportation dollars. This means both predictable and flexible funds.

With predictable and flexible funds, the State and local partnerships can make the decisions that best link transportation and land use, achieve improved air quality, integrate transit and highways, and develop support for increased local funding.

In conclusion, achieving a redirection of the Federal highway and transit program to serve the interests of all parties can be accomplished by using metropolitan and rural program requirements to stimulate new thinking by existing institutions. The Federal Government has worked to develop the necessary State and local institutions and decision-making processes that are flexible enough to make investment decisions required by a revised Federal program structure.

We believe California will be a prime proving ground for the new Federal transportation policies in the post-Interstate period. We look forward to working with you at what is sure to be an historic point in the development of the transportation systems of this county.

I do have additional comments regarding the Urban Mass Transportation Administration processing time and procedures and some of the proposals for remedying some of the difficulties there; and I will take those up during questions and answers if you would like, Senator.

Thank you very much for being here.

Senator CRANSTON. Thank you very much Rod, that is a very helpful and constructive statement.

I hope and believe we are at an historic point in the development of a better transportation policy and program in our country. I agree with you about the need for a tax that should be used for the purpose of promoting transportation and not to balance the budget. I hope that the current price gouging by oil companies does not raise prices so much that we have difficulty in achieving what we should achieve on that revenue plan.

Our next witness is Councilman James Beall, of San Jose; he holds many important responsibilities including being vice chairman of the National League of Cities and being Chair of the Santa Clara County Traffic Authority. We welcome you and are eager to hear your thoughts.

STATEMENT OF JAMES BEALL, COUNCILMAN, SAN JOSE CITY COUNCIL; VICE CHAIR, NATIONAL LEAGUE OF CITIES TRANSPORTATION AND COMMUNICATIONS STEERING COMMITTEE; CHAIR, CALIFORNIA LEAGUE OF CITIES TRANSPORTATION AND PUBLIC WORKS COMMITTEE; CHAIR, SANTA CLARA COUNTY TRAFFIC AUTHORITY

Mr. BEALL. Welcome home, Senator.

Senator CRANSTON. Thank you.

Mr. BEALL. We are happy to have you in San Jose and I am happy to share my thoughts and the thoughts of the National League of Cities and the League of California Cities, as well as the city of San Jose, on the transportation problems.

In Santa Clara County, the voters, as Rod mentioned, approved the half-cent sales tax increase to fund three key corridors, highway corridors, in 1984. It was the first measure in California that passed and, since then, 14 different counties have passed a half-cent sales tax since 1984. The total amount of dollars in those 14 measures is now up to $11.5 billion. So there is a substantial local contribution that has been developed in the last 5 years in California for transportation.

The Santa Clara County, in this county, administers the fund, the Traffic Authority; and the key elements of these programs are widening their Route 237 and making it a full freeway, widening 101, and construction of Route 85 freeway.

Another source of funds that has been contributed by local government, such as the city of San Jose, is right out the window here you can see Route 87. The city of San Jose, in segment, has put up a $29 million contribution awaiting State funds from our friend next door here, Mr. Best, which we will try to get Friday at the State Transportation Commission to approve it. But we are putting up our local matching. And, in Santa Clara County, as a total, 86 percent of the highway construction is funded locally, not State or Federal.

So we have a different situation now where the local governments and the local agencies are now putting up more and more dollars. This is a national trend, as well; and the League of Cities has observed that the local governments have put up more and more funds over the years for regional and national highway systems and national transportation systems.

The State, in the passage of Proposition 111, has also created a situation where we are now required to develop specific congestion management plans; and that is an added responsibility of local government and, I think, a good responsibility to develop the congestion management plans designed to link our urban development decisions we make in development approvals with the transportation system and, also, dealing with the issue of air quality which is very important in terms of transportation. We have to have these transportation plans at a county-by-county level and they have to be consistent with the regional transportation plan.

I am also a member of MTC, representing the cities here in Santa Clara County. So everything is linked together here in terms of planning. I think the strengthening of planning should be reflected at a national level as well.

It is sort of a new way of doing business in California and we are going to try to make it work and that is what the voters asked us to do when they approved Proposition 111.

Despite the combined efforts to fund these transportation improvements, the available resources will not be enough to provide an acceptable level of transportation funding in the future. Efforts by Congress, in shaping the transportation policy for the next decade, should permit the maximum flexibility for our local governments to spend Federal funds in accordance with the State and local transportation priorities and plans. We are going to be developing these plans. We have to have the Federal funds be flexible. We cannot do, as we did in the past where two-thirds of the money was dedicated to the Interstate system and the rest of the money was some flexibility, but entirely flexible.

In addition, the cities of the nation—I note that your committee is going to bat for us, being responsible for urban affairs—we feel that there is a tendency now, in the formulas, that the money is not going to the urban and suburban congestion problem, but to an Interstate system that sometimes does not provide enough funds fairly to the urban areas of our country. We have a very strong opinion that, now that we have completed the Interstate system, we should now transfer the priorities of the country to solving the urban congestion problem, urban/suburban congestion problem, to solve the air pollution and some economic problems that we have in our urban areas.

We believe that the Federal Government should streamline the environmental and alternative processes which rival—probably detailed in the questions and answers, very aware of that. And we fully support that we want to see the Federal cost-effectiveness rating indices that they use to adjust those to protect the high cost of living areas such as San Jose.

Although the housing costs have not gone up recently, it is still a quarter of a million dollars in terms of the average housing cost. And, when the Federal Government compares a project in an area where the cost of construction is so low at the same comparison with a project in San Jose, we are discriminated against in terms of that comparison. We feel that the Federal Government should adjust those cost-benefit indices for the urban areas.

The League of Cities also urges congress to explore the possibility of leveraging a high return for the Federal investment in transportation through the establishment of a local incentive program similar to the State-local partnership program that was adopted with Proposition 111. This would be a significant asset in helping defray project costs and would foster the notion of intergovernmental cooperation.

We also urge the Federal Government to make the final completion of the Interstate program as indicated and establish this transportation trust fund independently from the Federal budget so as not to include it in the deficit calculation, and prohibit a Federal gas tax increase for deficit reduction purposes.

In addition, the League of California Cities is very insistent that you and the other Congressmen from California be aware of the fact that California does not get its full return on its gas tax contribution to the Federal Government. We know that you successfully got us the 85-percent rule in terms of return to the State; we would like, in the next round, to see if we can improve and get even more of a return, a fair return to California for the contribution we put into the Federal budget with the gas tax.

We estimate that over $100 million is not returned to California that California taxpayers contribute; and that is something that should be carefully promoted by all our Congressmen and our entire statewide delegation.

I hope these remarks are helpful and thank you for the opportunity to share the view of myself and the cities in our state; thank you very much.

Senator **Cranston**. Thank you very much for your remarks; they have been very helpful. I particularly agree with your point that we have to shift from the Interstate highway system getting the main Federal support to a system of helping develop local transit solutions in our communities.

I am perplexed by one aspect of that problem. We keep hearing that, while we have built the Interstate highway system now, that it is now deteriorating. We have to invest a lot of money to restore and maintain the roads as well as the bridges that are used in our highway system across the country. How much room that gives us when we want to transfer funds to more local forms of transportation is something I am not quite clear on yet.

Maybe our next witness can shed some light on that; I would like to ask you to do so if you can.

Our next witness is a man with a very great responsibility in this field; he is Bob Best, director of the California Department of Transportation. We welcome you to this hearing and thank you for coming.

STATEMENT OF ROBERT BEST, DIRECTOR, CALIFORNIA DEPARTMENT OF TRANSPORTATION

Mr. Best. Thank you Senator. I appreciate the invitation to be here. The comments I will make today, you will find, do reflect a lot of what both Rod and Jim have told you today.

California has been through a very intensive period of reviewing its own transportation programs and developing new funding mechanisms and approaches and one of our principal concerns is that, having gone through this and gone to the voters and asked them to put their trust in us by voting a substantial increase in the gas tax here in this state, that we do develop a federal program that can work with our state programs.

As Jim indicated we, in California, are generating very substantial funding for transportation at both the local level and the State levels and we need to have this as a uniform program where we are working together, State, Federal, and local, to generate a system and not attempting to run three or four different types of transportation development programs at the same time by different governmental entities.

On the particular point, let me do mention, I do have written materials that are being submitted and I would request they be made a part of the record, as you indicated earlier; and I will highlight just a few of the major points here right now.

With regard to the question of maintenance of existing facilities, I think we have to accept it as a given that we cannot afford to lose the major facilities that we have developed already, both in highways and in transit, and that that will continue to be an expensive proposition for us down the road and, I think, a continuing Federal interest in ensuring that the facilities, both interurban and urban and rural in transit are maintained adequately. That does not necessarily—we would not expect 100 percent Federal funding to do that, but certainly the Federal program that is developed has to recognize that the core of our transportation facilities is already in place and that core needs to be made to work better and needs to be preserved and protected as we go forward in trying to make something better than what we have already. We cannot turn our backs and forget the importance of preserving and making better even, make it work more efficiently, what we already have out there.

The real focus, as we go forward, is, I believe, this concept of the need to focus on developing systems and developing them on individual-area bases. We have learned, here in California, that we cannot dictate at the State level a transportation system and attempt to overlay that on the Bay Area and overlay the same system on Los Angeles or Sacramento or San Diego or any of the major areas, that, in terms of deciding what kind of a transportation system we need, that has to be focused in the local area to develop and take advantage of what exists in that local area geographically, politically, socially; they all vary dramatically from point to point. And, if we do not focus on, first, getting systems in place rather than individual projects and then focus that system definition on the local area, we will end up wasting a lot of our money, we will end up not getting the kind of efficiency out of our dollars to produce the kinds of transportation improvements that are desperately needed.

We are never going to have enough money to put in place a fully satisfactory transportation system for all purposes, that just does not exist there. In California, we have gone to local funding, we are going to privatization efforts, we are going to different types of approaches to try to build the investment in transportation. But we still recognize that, unless we are able to use the scarce dollars efficiently, we are going to fall short in terms of our objectives of getting something out there that serves the minimum needs and does it in a relative quick and effective way.

So, focusing that decision-making in the local area and generating the kind of a flexible program that will enable us to integrate these systems so that we can integrate transit, streets and roads, highways, the various types of port facilities, airports and seaports into an effective system in an area, it has to be the major thrust of all of our programs including the Federal level.

That is to be compared to a project-by-project focus that we have had historically and to the kinds of ownership issues that have gotten in the way in the past where we focused on a transit program, and a highway program, and a local street and road program, rather than focusing on developing a transportation program that provides the kind of integrated systems that are so desperately needed in our urban areas today.

When you then move on from the concepts of systems to the concept of funding, what that tells us is, with regard to the utilization of the dollars, is that we cannot preset all of these dollars in conceived programs with conceived formulas because they become too inflexible to be able to serve different needs in different areas of the country and, therefore, we need to have a flexibility in terms of the utilization of those dollars. We cannot get ourselves into a circumstance—or we need to get ourselves out of the kinds of circumstances we face now where we may study a major urban corridor and believe that the best solution to that is to implement a light rail system but the dollars are available and the matching ratios in the various pots that are available are such that we add another lane to the freeway because that is the most money we can get and the most money we can get on the most timely basis. So that we end up with our solutions chasing the dollars rather than our dollars chasing the most effective transportation solution.

So we need to introduce, then, into the Federal funding program, the same kind of flexibility we have tried to introduce into the State level where we are able to apply those dollars against the most effective transportation solution within a given area and to apply those dollars to different kinds of transportation solutions that are needed in different areas of the state and the nation as you move around.

With flexibility, certainly we would advocate we need to have a form of accountability. We are talking here about Federal programs and the Federal programs need to be serving Federal objectives and the States and local governments should be accountable for demonstrating that they are utilizing those Federal dollars to promote those Federal objectives. But we then need flexibility in terms of the actual choices that are made and the process and the programs that are then developed to achieve those kinds of Federal objectives that are set forth as part of the program.

My last point, I will raise it because none of the other speakers have mentioned it, it is very important that we realize that we are behind the curve in terms of research and applied technology development in the transportation field, we are behind the curve in terms of what other countries are doing, we are behind the curve in terms of the types of technology that is being developed outside the transportation field but not being translated or transferred into the transportation area; and we believe that it has to be a major focus at the Federal level to look at applied research in the transportation field, both in transit and in highways, to ensure that we are spending our money the best.

Many of the technological opportunities give us very high cost-benefit returns when compared to building major new facilities. So we would advocate a continued consideration of the Federal Government to focus a comprehensive research and applied technology development program for the Nation as a whole.

Thank you, Senator.

Senator CRANSTON. Thank you very, very much for that very helpful testimony; and thank you for your response to my one general question.

Mike Evanhoe was to be with us this morning; he is executive director of the Golden Triangle Task Force. But some other business intervened and he will not be with us.

Bill, do you have anything to add?

Mr. LUCIUS. No, not a thing, Senator. You and I go back when the highways were not as good as they are today.

Senator CRANSTON. When they were dirt roads.

Mr. LUCIUS. And 108 and 111, by the voters here, gave us a lot of extra funds and certainly very kindly.

Thank you, sir.

Senator CRANSTON. I am going to go on now to some questions. I will put them generally and, if one of you answers and then somebody else has a different view or a supplement, well don't hesitate to come in with that.

An efficient mass transit system obviously requires long-term investment, not stop and start decision-making that considers only 1 year at a time. Local authorities should be able to project and depend on stable sources of support to implement long-term projects. This requires the Federal Government to be a long-term partner in local transportation projects.

So what are your views on how we can improve the reliability and predictability of Federal funding;

To what extent should we rely more on formula allocations and discretionary grants;

And what problems do you anticipate might arise if federal assistance is committed on a multiyear basis for capital funding?

Any comments on those general points? Rod?

Mr. DIRIDON. Your question is multifaceted, Senator, and I will muddle through it and you guide me when I do not hit all of the points that you would like.

I think the character of mass transportation systems is that, unless you just build short sections, which do not seem to accomplish anything except spend an awful lot of money for very mediocre ridership, you are going to have phenomenal amounts of money. I think the Los Angeles Metro System is an example of that.

To do that, takes, also, a long period of time. As a consequence, your innuendo in regard to long-term commitment of financing, both in terms of capital and operating, is absolutely necessary. Of course, if you do not have the cash flow at the Federal level, you cannot make that commitment and, as a consequence, the whole process breaks down.

I would like to stress one element of that, though, unless you intend to come back to it in another question, and that is in the terms of the processing time required to begin and to extend one of these projects. Would it be appropriate to address it at this time?

Senator CRANSTON. Sure.

Mr. DIRIDON. Each of the three of us spoke about the importance of developing the level playing field, the flexibility in funding so that, when we receive money into the region or the State, we can put it, then, into the project that is best able to use the funds, whether it is a transit project or a highway project, it is the project that we choose locally to be the next in the expansion of our system or the completion of a system.

That is not the case now. The Federal Highway Administration's funding is more adequate; and I do not begrudge them that. It is just that it needs to be also more adequate on the transit side. It ultimately requires a significantly lower match than the mass transportation funding requires and the processing time is much, much faster than the mass transportation grant processing time. That needs to be remedied.

Let me dwell a little bit on the processing time problem. And, if I could ask the staff to assist by offering copies of this to the Senator.

That is a chart that was prepared by the County Transportation Agency staff based on our experience, now, not based on innuendo. It is certainly averaging and looking at a lot of different projects, though some go faster and some go slower. But, as you can see there, we are required to go through four different discrete studies, each of which has major decision points between them by the Urban Mass Transportation Administration.

And then there are individual decision points in the middle of the various studies that are not identified in the table. The result is that, even on the fastest track, which is allowed rarely because usually the studies are so complex that you cannot do a fast track, which is described on the left-hand side, you are spending nine to 12 years in moving a project from the point of concept to the point of beginning construction. That is not moving the project into use, that is beginning construction.

With the Guadalupe Corridor project, this is exactly what we experienced. We began the first study in 1973, we broke ground on construction in 1984; it took 11 years. With the Tasman Corridor project, we began the first study—actually, it was not the first study, it was the second or third study but the first serious study of that project—as a construction project in 1982; with luck, we will begin construction in 1993, 11 years.

Senator CRANSTON. That is a fascinating chart.

Mr. DIRIDON. Yes. The Fremont-South Bay Corridor project, to bring BART down from Fremont to San Jose, began in 1982. It has been held up now, by Federal procedures that I would also like to address in terms of the criteria being used for project approval by UMTA, and we do not expect to begin that project, now, until 1996 or 1997.

Now the problems that we are seeing here are probably threefold. The first is the processing time itself; we do not need to do that many studies, it just is not necessary to do that many studies.

Senator CRANSTON. What would you eliminate in this?

Mr. DIRIDON. Well, I would combine. Instead of doing a systems-level study and an alternative analysis and preliminary engineering, there are, in almost all cases, an opportunity of doing those three together. Certainly the systems-level analysis and the project-level alternative analysis can be combined. And, oftentimes, preliminary engineering can be done because logic can tell you what corridor is going to be chosen and what mode is desired in the corridor.

Senator CRANSTON. Can you give us, for the record, another chart the way you think it ought to be?

Mr. DIRIDON. Yes, we can do that. And Jim Reading is here from the Transportation Agency and he just heard that and will go to work on that and make sure that you have that in the next few days.

The next element of the problem there is to take the burden of responsibility for this off of the Urban Mass Transportation Administration in terms of blame; there is no blame here because UMTA does not have the staff to do this job, especially at the District Offices. They are so short-staffed that they have to send these reviews, now, back to the office in Washington. There are only a couple of staff members working back there on all of these projects going on in the whole United States and, as a consequence, their short staff is holding up the projects.

The last point is lack of funds. When there is not funds to give out for a project under review, there is a tendency, then, for the studies to attenuate in order for nobody to have to say no to a local jurisdiction that might have a decent project. So you begin to remedy many of these by providing the funding to create the staff for review and to create the staff for grant purposes.

And those are my comments in regard to the point you just made. I have a couple of other points to make at another time.

Senator CRANSTON. That is a remarkable reply and a very constructive one.

Does anybody else have any comments on that general item?

Mr. BEST. Senator, if you do not mind, I would like to address the particular point you raised about discretionary versus formula approaches and to point out, the problem with the discretionary approach is that the decision has to be made by the Federal Government as to whether or not a project will go. If you are trying to look down the line and project in the future and build your system and you do not know whether a project is going to go or not, it makes a very critical difference in terms of what you do.

If you are going to have a major transit system in place that is going to carry a significant portion of your transportation burden, then what you do on your other facilities would relate to that. If, on the other hand, you are not going to have that, then you have to have other facilities instead. So, if you have discretionary programs where you cannot predict very much in advance what will or will not be done with regard to major transportation facilities, it destroys your whole ability to look at your system.

After all, again, it is not just a question of whether this project will go or not go or what year it will go in, what we are trying to do is we are trying to put together a transportation system involving multiple modes, multiple projects, and multiple governmental entities to serve a critically important area.

That is the big problem we have from that; and that is why, from my perspective, I tend to favor a formula distribution because of its reliability. It is also why we said earlier that, rather than project-by-project approval, we ought to be able to make that decision at the local level as to what that project is going to be and have certain Federal criteria and Federal program objectives that we will be meeting and that any project that would serve those criterion objectives should be approved so that we can balance that system with where we are spending our local money and where we are spending our other money.

Now, just the last point, we recognize that there have been a lot of discretionary grant projects started and it obviously does not make sense to just turn around and terminate that program. So, in some manner in the reauthorization, we are going to have to provide for reasonable completion for the discretionary grant programs that have been initiated and are underway.

Senator CRANSTON. Do you agree with Rod that this chart should be streamlined and shortened significantly?

Mr. BEST. Across both UMTA and other areas, we could make substantial progress in streamlining the development of those projects, particularly, I think, of concern in the UMTA process is you are not real sure when or if that approval is going to come so it upsets not only your transit planning but also your highway and road planning at the same time.

Senator **Cranston**. How would California do under a formula approach? Would a formula approach to capital projects spread the money too thinly?

Mr. **Best**. Well, do you mean on a nationwide basis, Senator?

Senator **Cranston**. Yes, how would California do if that was a factor?

Mr. **Best**. Well, California is doing quite well right now under the discretionary program. It has not always been that way, historically, and so, in order to answer that question, you have to ask yourself, do we compare it with what we are currently receiving or an average over the years, and so forth.

Certainly, if we went to a formula program that was equity-based, in other words, ensured that all states got something that they would reasonably accept as an equitable return, compared to what California is currently receiving right now, we would probably be receiving less of the money if you look just at the UMTA pot or the Urban Mass Transportation pot.

But that is another reason why we have to look at it from a total transportation perspective; and, if we got greater returns from other areas, for example, under the formulas under the Federal Aid Highway program, and had flexibility to use some of that money in the transit arena, which is what we are advocating for, then I think we could come up with a formula distribution program where California came out reasonably well and transit, in particular, in California was protected by the flexibility in the use of those funds.

Mr. **Beall**. Senator, I think the formula that we are banking on right now is Cranston, Anderson, and Manetta; that is our formula. That is the reality right now.

As you know, in the past, as I think Bob and Mike can point out, also, other States have the right formula; but right now, we seem to be having the right formula in that regard. So we are OK right now.

The cities as a whole, though, feel the formula only puts the money outside the cities as opposed to in the urban areas where the congestion problems are. So that is a real statement on behalf of all the cities in the country. The formula discriminates against urban areas right now, strictly discriminates against us.

Senator **Cranston**. I thank you and hope we can make that particular formula work.

I want to get to a rather complicated and troubling question now. This area has embarked on one of the most aggressive mass transit efforts anywhere in the country. Voters have shown the farsightedness of responding to intolerable problems of congestion by agreeing to increase tax assessments specifically for the purpose of constructing mass transit systems. As a result, this community has successfully expanded its public transportation system under your leadership. Significantly more local funding has been used than most other projects in the country. This raises a question of whether and how this strong local commitment should be rewarded.

Currently, the requirement for new ridership levels and other standards are the same for localities that invest the minimum 20 to 50 percent matching funds as those that contribute much more.

I am interested in hearing how each of you would recommend the Federal Government treat communities that overmatch with locally raised discretionary funds.

To what extent would allowing such an area to buy down UMTA threshold requirements work unfairly against communities that simply cannot afford to overmatch? How, in equity, do we deal with that problem? Rod?

Mr. DIRIDON. We have really been struggling with this issue within the National Association of Counties, which is predominantly small-county oriented, as you know, Senator and the 30 or 40 major counties out of the 3,500 counties in the nation are sometimes overwhelmed.

I would strongly suggest that a buy-down opportunity rewards those that have come up with additional local support. And, of course, that is what we have told our public when we have gone to them for taxes, that we would be able to use it as matching funds. If we are not allowed to do that, then we will never pass another local tax because, in passing a local tax, you almost put yourself at a disadvantage, then, in obtaining State and Federal grants because you have less need.

So I think it is unavoidable that there would be an opportunity for buy-down and an opportunity, therefore, for advantage if you have the local matching funds. At the same time, to protect those rural jurisdictions that do not have the assistance, or even some urban areas that might be less affluent, there needs to be a separate funding source that would be more need-driven and respond purely to need. And that takes some sensitivity that typically large bureaucracies are not designed to offer.

I would like to, though, address the strong disagreement we have with current UMTA criteria. You have talked about one criteria; there are several other criteria which I do not believe are currently effective within the UMTA review process. I will save that because I think Jim has a comment on this specific point.

Mr. BEALL. Well, the League of Cities feels strongly that the current way that the system works fairly discriminates against costly, large urban metropolitan areas. The formula discriminates against us in terms of the cost of living indexes and the use of those on a national level, nationwide level, as opposed to just looking at the cost index in the urban area where the project is situated in.

For example, in San Jose, buying property for single-family dwelling land use kind of property is over a million dollars an acre in San Jose, whereas, in some other area, it might be $200,000 an acre. The same index is used. These are uncontrollable costs and, if the same index is used, the other area might have a favorable rating on the project whereas we would have an unfavorable rating just because the cost of land in our area is more expensive.

So there is a real strong feeling that the urban areas are discriminated against with mass transit projects especially in the formula that UMTA uses. The League of Cities would like to see some fundamental changes in that system.

Mr. BEST. Senator, from the state level, and I will not comment on the ability to buy down some of the requirements by overmatching, I am sure that is a flexibility that would be very important for a number of local projects, but your question raises the point that we addressed earlier on the level match issue. We are very concerned about having the level match be among the various programs so that we are not skewing priorities to chase dollars.

And, if there is going to be overmatching, we think overmatching ought to be on a program basis not on a project basis.

So areas like San Jose, Santa Clara, where they have come up with substantial local, and in some cases state funds, to invest in a transit system well above the minimal percentage matching ratios that would be required, should get credit for overmatch and then have the same matching ratio, if they can get the—so the individual projects that are federally funded would still be maybe an 85-15, something like you would have for a highway project, so the individual projects are evaluated. And, if that overmatch gets credit for buying down certain requirements, it is not on a project-by-project basis, but that the jurisdiction qualifies by virtue of its program commitment to overmatch and any benefits that would flow from that would flow to all projects in that area, not on an individualized basis.

Mr. BEALL. I think my friends would agree with that.

Mr. DIRIDON. To emphasize that, Senator, the Bay Area that has done the master planning process now which is applauded by UMTA because we have such great consensus behind our regional master plan, has a local match—pardon me, has a Federal match requirement of only 27 percent. That is pretty good. We have overmatched dramatically on a systems basis. Some of those projects will not qualify for Federal funding because of the peculiar criteria that UMTA is injecting into the process here. And we are funding all of those projects locally.

Other projects we do qualify for Federal funding and, as a consequence, receive more toward the 50-percent match criteria. But, as a system, we are receiving only 20-percent Federal funding on our mass transportation long-range new rail starts and extensions program.

Mr. BEALL. I think it would also, just on a matter of other cities, not just necessarily California, that kind of thing would also help a city like Phoenix, for example, that has such a hard time convincing voters to approve a mass transit ballot measure where they had a failure last year. If they could come to the voter and say, "Hey, look, the Federal Government is not going to penalize us; in fact, they are going to help us if we pass this measure.", it might give the voters an incentive to vote yes on a measure. Whereas, right now, there is no incentive so they just vote no because they do not see the incentive or the reason to vote for it.

Senator CRANSTON. I think all three of you expressed the importance of flexibility in your remarks. I would like to get into that a little bit.

The Federal Highway Administration and UMTA have significantly different standards, as you know, with regards to matching requirements and cost-effectiveness criteria. Due to this division, localities are forced to choose whichever mode of transit is easier to fund, sometimes, rather than what would most effectively and efficiently serve an area's needs today and on into the future.

The American Public Transit Association and transit agencies here in California have suggested that greater flexibility should be allowed in the use of Federal funds by local officials, as you have suggested today. Frankly, this would be a major change in the way decisions are made if they are applied to Federal funding. I am particularly concerned that mass transit not be put into a disadvantage in the long-term.

So the question is: To what extent should the Federal highway and mass transit programs become more integrated and how should we create greater flexibility in the use of Federal transportation funds to allow a stronger multimodal approach to planning, funding, and decision-making?

Mr. **Best**. There are probably a number of ways to skin this cat, Senator. I think that some of the principles that we have laid out today are the keys to it. One of them is the concept of systems planning, that we should have, at least at the planning stage, a requirement that it be done on an integrated and uniform basis so that we have a single set of Federal requirements with regard to transportation, planning, and decision-making so that we are making those critical trade-offs at that stage.

It would be also very helpful to go down the line and have an integrated transportation trust fund, as well, that would drive the projects in terms of the ultimate benefit to a State like California.

But I think, at this stage, we would say that at least it is very important, extremely important, that that decision-making stage be integrated and that it be considered. And that may be easier to accomplish than integrating the transportation trust fund with all of the constituencies that have to protect various types of formulas and funding that have existed in the past.

So my suggestion would be, by requiring that you have the integrated planning and decision-making focused at the local level and providing some degree of flexibility and the transferability of those funds back and forth. We could achieve a lot of the flexibility we are seeking but there could still be protection to ensure that, in our area of the country, transit would not suffer with that kind of flexibility. Perhaps in other areas of the country it might; but there could be protections built into the funding side to ensure that one program was not totally robbed at the expense of another on very shortsighted decision-making in some other areas.

Senator **Cranston**. Could you give us your thoughts in writing in how that protection could be provided?

Mr. **Best**. Certainly, Senator.

Senator **Cranston**. That is a very complicated aspect that we would have to have a good answer to if we are going to make any changes.

Mr. **Beall**. One point I would like to take off on what Bob was saying, is that the California voters approved Proposition 111 with the congestion management plans and I think a strong, long-range regional plan, and also county-by-county in the region planning on the transportation system, develop an integrated system that not only deals with just transportation as a project but transportation as part of a land use and air quality and quality of life situation is the appropriate thing to do.

Sometimes, I think the system we have now, the Federal system we have now, discourages long-range planning, it actually discourages us from looking at what the implications of our decisions are on a long-range basis. So I think we have to encourage this long-range master planning of a transportation system that is integrated with the environmental and social concerns and so forth.

Most cities are reluctant, at this point, to build any more Interstate highways. Why? Because housing is too valuable. That is another issue the committee is dealing with. Housing is too valuable in San Jose to put another Interstate highway through.

Senator **Cranston**. Do you mean to put a highway through that would knock out the housing?

Mr. **Beall**. Yes, plus we cannot replace the low-cost housing; it would be a waste of money.

Mr. **Diridon**. Senator.

Senator **Cranston**. Yes, Rod?

Mr. **Diridon**. Let me elaborate on that point because I think it is a very significant one.

In the Bay Area, we not only are to the point where we are out of dirt to pave, we have paved up to the edge of the plan lines on many of our freeways and cannot expand them any further unless we are going to double-deck; and we are not going to double-deck both in terms of the engineering problems as associated with earthquakes, as well as the cost, and congestion of the backup on feeder roads and so on. I mean, we probably will not see any more double-deck freeways.

That, coupled with the fact that the Federal and State clean air acts, as they are being strengthened, are going to be very difficult to meet. The Sierra Club has already put us on notice, by suing us, in regard to the old 1970 Clean Air Act because we are almost in compliance but still technically out of compliance.

I think it is going to be very difficult to have new freeways built in this region. I do not think we are going to be legally able to do that and still expect to see compliance obtained with the Clean Air Acts and avoid the legal actions that would cause long-term delays, if not stoppages, of those construction projects.

The result is that, if the money continues to be segregated the way it is, with the vast majority of the money available to highway projects, then this region will not be able to qualify for those projects because we cannot build the highways any more in this region.

Mr. **Beall**. Most urban areas.

Mr. **Diridon**. And we are a little unique in that the environmental organizations are a little more aggressive in our area but it is only a matter of time before it occurs in other areas, too. The result is that, if you do not pool transportation money and call it transportation money instead of mass transit and highways, and let the local jurisdiction begin competing for those funds based on the viability of the local project and have that project good for the area because the local people have concluded that it is good, then we are going to be at a distinct disadvantage.

Senator **Cranston**. This is perhaps more a political question but do you see any possibility that we could merge the highway trust fund with other funding mechanisms in order to get a more balanced program?

I know that highway trust fund people have traditionally been very jealous of keeping the money just for highways but, when you get to the point where highways are completely log-jammed and gridlocked, the needs of those who have to use the highways would be served if there were alternative modes of transportation that ended the gridlock.

Do you think we could make any progress to consider trying to see if it would be possible to do anything along those lines?

Mr. DIRIDON. Let me comment and show you a couple of scars from a long debate we had with the National Association of Counties, their legislative committee, just a short time ago.

We have gone through four meetings now, each one taking hours, trying to develop an agreement on the part of the National Counties organizations on beginning to use the gas tax for transit, or even a portion of it. Finally, the National Association of Counties have come to the conclusion that it is OK to do that as long as no highway projects would be in any way disadvantaged by that process.

The National Counties would, in no way, agree to merge any trust funds at this point. The small counties, which tend to be the dominant, as small-State Senators tend to be the dominant force in the U.S. Senate, the small counties tend to dominate the National Association of Counties and, as a consequence, it will be years before we are able to see a true integration of those two funds. Even though, for the vast majority of the population that tends to reside in urban areas, it would be an advantage.

Senator CRANSTON. That would relate to the question I asked you to think about and respond in writing, how you could protect the interest of those in that kind of a circumstance.

Mr. BEST. Yes, Senator, I would. And I would, from the State's perspective, I think my answer would be very similar to Rod's. We spent the last couple of years working to get some sort of national consensus from among the states on transportation programs and there are a lot of states who would be very, very concerned about the trust fund issue.

I do think, however, that this is an issue that can be approached incrementally at this time. I do think that there is a level of recognition and acceptance out there, much better than there was a few years ago, about the problems of the urban areas and the difficulty of meeting those problems with these isolated funding programs. And so, by setting aside a program, a portion of the funds to be used on a fully intermodal basis, without attempting to bite the big bullet of destroying the historically very strong concept of the highway trust fund, might be achievable at this time, from our perspective.

UNIDENTIFIED SPEAKER FROM AUDIENCE: [Unintelligible.]

Senator CRANSTON. I am sorry, but I have to limit this conversation to the witnesses that are here. But we will take into account your questions as we consider all aspects of the transportation needs of our people and our country.

I want to get back to something that Rod alluded to which is other matters like air quality that relate to all of this. Regional planning agencies, such as the MTC, have been successful in integrating land use, air quality, transportation planning, and implementation across jurisdictional boundaries.

What kind of impediments do we currently have that may prevent other areas from establishing such agencies? I know there are a lot of jurisdictional turf problems connected with this.

What assistance could the Federal Government provide to help develop these partnerships among local governments in a given area and how can existing regional decision-making authority over the use of Federal transportation funds be enhanced and strengthened?

Mr. DIRIDON. Senator, I would like to begin by saying MTC is very proud of having put together our master plan for transportation and having a mechanism now for updating it periodically.

We still are a ways, though, from perfectly integrating that mass transportation system with land use and air pollution. Indeed, there are three different agencies in the Bay Area that work on those topics. They are being looked at now in terms of the possibility of merger or streamlining by a commission called the Bay Vision 20-20 Commission, headed by Chancellor Ira Michael Hayman, who you know very well. And Mike has a commission of the most profound minds in the region who are looking at the possibility of streamlining a relationship between those agencies.

But MTC is working very well as a metropolitan planning organization and is recognized as such by the Federal Government. I think that which would make it work even better would be to entrust it with more responsibility. If the Federal Government were to say that no money would come into a region, of any kind, unless it was approved by an MPO, then that MPO would have the authority to integrate land use planning and transportation because you would have the lever of not giving money unless land use planning and transportation and air pollution were integrated into an acceptable combination.

As it stands now, MTC is able to virtually accomplish that objective but only by dint of the fact that we have reached out and grasped that authority. In other areas where there tends to be battles over authority at the regional level or where the regional organizations may be weak, there are end runs continuously around regional organizations to the Federal funding pocket. And whenever that happens successfully, then the regional organization loses its power to integrate.

Los Angeles is a good example. Unfortunately—or fortunately, depending on how you look at it—the city of Los Angeles is so powerful that they are not required to operate through the metropolitan planning organizations so the metropolitan planning organization cannot guide the overall region; they have to, instead, work in the manner that the big brother wants them to work, the city of Los Angeles.

Senator CRANSTON. Let me ask one final question before we move on to the next panel; this is a very general one.

I want to thank each of you for the time and effort you have put into today's testimony; I know the challenges that we face are great, the solutions are not that easy to find in every case, or to achieve.

Let me ask you this; and you can answer this very, very briefly, each of you.

If you could identify the one most important change that needs to be made through the reauthorization bill next year, what would that change be? Does it relate to something that needs to be strengthened, something that needs to be eliminated, something new we have to do?

Let me start with you, Rod.

Mr. DIRIDON. Funding.

Senator CRANSTON. Funding.

Mr. DIRIDON. We need a level of funding at the Federal level that would probably equate to about a 25-cent gas tax increase and spread that both transit and highways, hopefully developing a sharing between them so that there is not the discrimination between the modes now.

Senator CRANSTON. Plainly, funding is needed. Plainly, funding is very difficult, given the budget situation, given the uncertainties now about the price of oil and so forth. But funding is something we have to find a way to get to.

And I believe very strongly, despite the turbulence in the Middle East, that we are now putting too much into military matters and underfunding the domestic needs of our country. We have got to strike a greater balance.

Bob.

Mr. BEST. The integration of the systems is what I would say is most important and that includes, then, the concepts of the flexibility and the use of that funding and the ability to make decisions at a local level as to the projects and the overmatch issues, and there are a number of related issues that all tie back to that one principal issue of being able to integrate our individual systems by individual local areas.

Senator CRANSTON. Jim.

Mr. BEALL. The cities are quite concerned about this "Son of Interstate" proposal that is being developed where we just draw a bunch of different lines on the map and bring another increment of the Interstate system and we are totally, flatly opposed to that. So my answer to your question would be to redirect the Federal emphasis from an Interstate concept to an urban/suburban congestion concept for the federal program.

Relate it to the people that need the transportation solution; that is my answer.

Senator CRANSTON. Your testimony has been exceptionally helpful; and I thank you very, very much.

We may have some follow-up questions in writing, if you could respond within two weeks, it would help us very much.

Thank you a great deal.

Having heard from the public sector panel, we now go to the private sector panel. Will its members please come forward?

I would like to call first on Michael McGill who is the executive director of the Bay Area Economic Forum.

And, to repeat the formula, any written statements you have submitted will appear in full in the record; please try to summarize the most important points you want to get across in 5 minutes.

STATEMENT OF MICHAEL McGILL, EXECUTIVE DIRECTOR, BAY AREA ECONOMIC FORUM

Mr. McGILL. Thank you, Senator, it is good to be here.

I have submitted a report, which I will simply summarize in my testimony this morning.

The Bay Area Economic Forum is only a year and a half old. It is a public/private partnership created jointly by the Bay Area Council, a regional business organization, and the Association of Bay Area Governments, the regional council of governments for our region. It was explicitly created to address issues affecting our regional economic vitality and to try to develop unique public/private partnership solutions to those problems. I am here to talk about traffic congestion. In the Bay Area Council/KQED poll that is conducted each year across the entire region, traffic problems have been identified as the number one issue affecting our quality of life for the last seven years. This poll is conducted in an open-ended fashion where respondents are asked simply to state what they foresee as the most serious problem as being. And, even after the October 17 earthquake, when the poll was conducted within 2 weeks of that event, traffic was still the No. 1 problem facing the region by a margin of two to one. So one of our concerns is reducing traffic congestion in the region so that our economic vitality can be sustained.

We use the 1988 California Clean Air Act as the cause for making a number of recommendations to address the traffic congestion issue. The 1988 California Clean Air Act establishes standards for air pollution that are 25 percent more stringent than federal law and specifies that, for the Bay Area in 1997, we must reduce auto travel by 35 percent. That will not be easy, obviously, and the reduction required in the Los Angeles Basin is much greater.

Air pollution, on the other hand, is not perceived to be a serious problem in this region. We have clear skies; the few days when we do violate the standards are locally confined to southern Alameda County and Santa Clara County. So what we are suggesting is that we take the Clean Air Act as an excuse and use it as a means to reduce traffic congestion.

Our basic approach is to use pricing mechanisms to establish prices for auto and road use that more realistically reflect the true costs they impose on our society. Right now, for instance, the existing gasoline tax in the State of California imposes a charge of a little more than 1 cent a mile on the typical auto user. The average cost of auto exhaust, in air pollution terms, is 1.5 cents a mile.

For a driver who drives alone and chooses to use a congested urban freeway during rush hour, the cost of building and maintaining a lane of that freeway is 60 cents a mile.

So we obviously are not charging our drivers the true cost for traveling when they choose to travel, how they choose to travel.

We are proposing several measures to be implemented in the State of California for the Bay Area to address these issues. First, we recommend a smog fee. Your car would be inspected each year, there would be a fee imposed anywhere from zero to three cents a mile times the number of miles you have driven since the last inspection, based on the dirtiness of your exhaust.

We also propose an upgrading in the annual inspection and maintenance procedures so they are more effective. With regard to traffic congestion, which is a generator of air pollution problems, we recommend that prices be imposed for bridges and road use during peak commute periods. We already have bridge tolls in the Bay Area so it is not something totally unknown to our region.

But we also recommend that highway tolls be imposed on those congested portions of our region's freeways during peak commute periods, something like 10 cents per mile. These could be collected automatically by using automatic recording devices and billing drivers once a month. We also recommend, as California agreed to do, that the State gasoline tax be increased.

And finally we recommend that these fees that are being collected be put right back into each corridor to provide low-cost options so people do not need to drive alone; a region-wide network of car pool lanes; improved bus and rail transit service; and finally, to ensure that there are no problems with equity, we recommend that a portion of these funds be used to create either a State income tax rebate or a voucher system so that low-income residents can repair their cars and comply with the Clean Air Act without having a disproportionate hit on their income.

Now the Metropolitan Transportation Commission, whom you heard from in your last panel, is responsible for preparing a plan to address the mandates of the 1988 California Clean Air Act with regard to traffic control measures. They are now in the process of finalizing that plan in negotiations with our Air District. They have hired consultants to estimate the relative impacts of each set of alternatives they were considering.

Our package was found to have the most significant reduction in auto emissions of all the packages being proposed, equalling almost half the mandated 35 percent reduction as of 1997. We are also finding support for this approach elsewhere in the state of California and in the Nation.

The South Coast Air Quality Management District and the Southern California Association of Governments have a joint task force which recently recommended the consideration of market-based solutions to reduce traffic congestion and air pollution.

You asked a question of the last panel concerning what actions Congress might consider taking, or the Federal Government might consider taking, to enhance our efforts to reduce traffic congestion. One problem we see that Los Angeles has been experiencing is that, as they have been negotiating with the Environmental Protection Agency to comply with the Federal Clean Air Act, they have been told by EPA, time and time again, that they will not be given numerical credit for using pricing mechanisms to reduce auto use.

Apparently the latest amendments to the Clean Air Act are making some inroads into that problem. But there is an issue; we find that, in California, the planners and the air quality people will accept the validity of pricing mechanisms, they will attach to the idea of raising the cost of commuting alone and using that money to provide more transit service. They find the ability to validly project a certain percent reduction in auto use as a result of those measures.

It is imperative that EPA do so, as well, so that we and Los Angeles and other areas in California facing Federal Clean Air Act problems, as well, can get credit for using pricing mechanisms to reduce air pollution and traffic congestion.

Thank you.

Senator **Cranston**. Thank you very much for some very fascinating facts and figures that you put into that testimony.

I would now like to call on Arielle Leonard, Director of Transportation and Land Use for Santa Clara County Manufacturing Group.

STATEMENT OF ARIELLE LEONARD, DIRECTOR OF TRANSPORTATION AND LAND USE, SANTA CLARA COUNTY MANUFACTURING GROUP

Ms. **Leonard**. Thank you, Senator, and I appreciate the opportunity to speak to you this morning. I will remark that I have laryngitis so that, if my voice stops half way in the middle, it is not because I have lost interest, I have simply lost my voice.

I am the director of transportation and land use for the Santa Clara County Manufacturing Group. The Manufacturing Group is a business association with more than 100 corporate members which addresses public policy issues that impact the business climate as well as the quality of life here in the Santa Clara Valley.

We have a 10-year history of involvement in transportation and related issues and have acted in support of the 1984 half-cent sales tax as well as the recently passed proposition 111.

The Manufacturing Group is absolutely convinced that a modern, efficient transportation system in the Silicon Valley is crucial to the continued vitality of our high-tech industry and, if we have been concerned in the past about our transportation system, we have two particular concerns that are much more immediate.

First, if this country is to remain competitive in the high-tech area, then the key centers of high-tech activity, such as the Silicon Valley, must continue to attract the best and the brightest minds in order to keep the industries here flourishing. This means that, in addition to offering excellent professional opportunities, the area must have both housing that is available at a competitive cost as well as a transportation system that enables one to get from home to work and back without involving hours and hours in traffic jams.

Congestion has a secondary cost on the competitiveness of industry, which is, it renders the cost of shipping materials and goods higher and the productivity of workers lower. Both situations have negative ramifications, obviously, on the competitiveness of a company as well as an industry.

Our second immediate concern is that businesses will soon be required to play a new role in the implementation of transportation demand management programs. Here in the Silicon Valley, within the next month or two, we anticipate that five of our cities will be adopting a uniform transportation demand management ordinance which will set in motion a 3-year, phased-in mandatory rideshare program for all mid- and large-sized businesses. Businesses will eventually be required to develop rideshare programs for employees, designed to achieve a 1.33 average vehicle ridership at each work site.

With the creation of the new congestion management plan as a result of Proposition 111, it is reasonable to assume that these requirements will soon be adopted by all the cities here in the county. Now, adoption of this ordinance will mean the expenditure of tens of thousands of dollars on behalf of Santa Clara County businesses.

In addition to that, on the regional level, the passage of the 1988 California Clean Air Act, which several of the previous speakers have made reference to, required that our Metropolitan Transportation Commission, as well as our regional Air District, develop a program of regional transportation control measures and aimed at reducing illegal emissions. And I want to bring to your attention that every proposed transportation control measure program, so far, has included some mention of mandatory rideshare programs at business sites.

I want to stress to you that the business community in Santa Clara County is not opposed to these requirements, per se, provided that they are reasonable and that the benefits in terms of increased ridesharing rates, and that included transit usage, is in decent proportion to the cost incurred by businesses to implement the program.

The biggest concern of the business community is this: If our charge ultimately is to get employees out of the solo driving mode, then clearly our transportation system must be capable of supporting this goal. That means it must function effectively in getting people around the region, whether they are traveling short distances or long. And I would call it to your attention that resident workers in Santa Clara County have the second shortest average commute distances in the region and that is about 9.4 miles; so we do need to address the short-term transportation needs.

We also need to address the needs of people driving, whether they are commuting or not commuting; and it is important here to note that only 22 percent of vehicle trips are commute trips. And we also need to address vehicle trips that involve crossing from one transit district's "territory" into another. In other words, if we want people to make optimum use of transportation alternatives such as transit and car pooling, et cetera, then the system must be, as we are fond of saying in the high-tech business, user friendly.

So that is the role of the Federal Government, ensuring our transportation system is conducive to meeting our regional goals, both in terms of mobility and our clean air goals. First, we believe it is essential that Federal funding continue to be available for regional transportation projects as well as for transportation progress. And, while Californians, and certainly Santa Clarans, are not adverse to reaching into their own pockets in order to fund needed projects, Federal dollars will better enable us to keep pace with the population growth the State is expecting over the next 20 years.

Funding guidelines should be established that encourage regional planning but that take into account local transportation needs and priorities. The Federal funding process should be flexible enough to allow regions to establish their own priorities.

Several previous speakers referred to a systems approach in this concept and we, the Manufacturing Group, do support a systems approach in addressing transportation concerns. In the Bay Area, it is clear that everyone cannot get around solely via the BART system, the Cal Train, or the light rail; and, likewise, it is the rare individual who can get everywhere he has to go vis a vis the Interstate system. In fact, most people rely upon a variety of intrastructure components every day to get from place to place. So the systems approach, we believe, takes this into account.

We believe that technological solutions to transportation problems should be strongly encouraged and funded.

And finally, our clean air goals, and that is Federal and State, should be a priority consideration in terms of national policy. This means that a package of Federal tax incentives should be developed, both for people who elect to use transportation alternatives as well as for th employers who are going to have to spend considerable sums of money to set up successful rideshare programs.

Once again, I would stress that a transportation system is important to the business community. In this valley, I think we have put our money where our mouth is and we are very concerned that we successfully address our mobility and our future economic concerns.

Thank you very much.

Senator CRANSTON. Thank you very much; we appreciate your testimony.

We will now hear from John Holtzclaw who is the Chair of the Transportation Subcommittee of the Urban Environmental Committee of the Sierra Club.

STATEMENT OF JOHN HOLTZCLAW, CHAIR, TRANSPORTATION SUBCOMMITTEE OF THE URBAN ENVIRONMENTAL COMMITTEE, SIERRA CLUB

Mr. HOLTZCLAW. Thank you very much, Senator. I am not sure about the Sierra Club having joined the private sector today; I guess that is a step up, I am not sure.

I very much appreciated your opening remarks and what I am going to say elaborates on them to some extent.

In California, we burn 76 percent of our petroleum in transportation so anything that gets to reducing petroleum use, petroleum security, and so on, has to look at the amount we drive. And, in that respect, I did a study recently in the San Francisco Bay Area in which I looked at five different communities; I will talk only about the two extremes.

One, northeast San Francisco, from Nob Hill to Fisherman's Wharf, dense, very good transit service; and, at the other extreme, Danville-San Ramon with almost no transit service, very sprawled out. The people in northeast San Francisco lived at 31 times higher residential density than the people in Danville-San Ramon so they used that much less land. But what was most astonishing is that they had 200 times as many restaurants and markets within walking distance, 200 times as many. And, as Arielle said, only 22 percent of our trips are job trips; the other 78, nearly 80 percent, are related to shopping, related to going to recreation, related to visiting friends, things like that. And this goes with those other trips as well as the jobs trips.

As a result of this, the people who live in northeast San Francisco owned one-third as many cars per capita and they drove one-fourth as much. And a family in northeast San Francisco saved $14,000 annually in auto costs compared to the family in Danville-San Ramon.

And, because their destinations were so much closer and they could walk or take a shorter transit ride or, if they had to drive, drive a shorter distance, for every mile that a person in San Francisco rode on transit, they didn't drive 10 miles compared to Danville-San Ramon. So there was a leverage there of 10 to one.

How did we get into this pickle where we have created the Danville-San Ramons that require people to drive so much for their everyday life? Well, for one thing, we have subsidized motor vehicle use. There are at least $4.00 a gallon worth of subsidies on motor vehicle use; every time you put a gallon of gas in your car, you are getting at least $4.00 in subsidies. Those include subsidies for building highways, for emergency services to people on roads, subsidies for the property taxes that are lost when you bulldoze a block-wide swath of houses or businesses out to build a freeway, free parking at work, free parking at shopping centers and places like that; and this is a particular case where the low income and the people who take transit and ride are subsidizing the people who can afford to drive.

Air quality impacts, both health impacts, time lost from work, impacts on agricultural losses, and the costs of building deterioration and other deterioration like that, all of these add up to at least $4.00 a gallon.

The Federal Government has put seven times as much money—eight times as much money into highways as they have put into mass transit. So their imbalance has been eight to one favoring highways.

What do we propose? Certainly not more highways; that will just lead to more sprawl. We would encourage three things; one, more studies of the subsidies to motor vehicles, the impacts of motor vehicle use on more highways on both the way people travel, the environment, the central cities, the minorities, the low income, and so on. I am a consultant so, obviously, we always urge more studies.

Second, we would urge that we do not, in the future, subsidize motor vehicle use. And, when I say subsidies to motor vehicle use, I do not mean that necessarily the people that pay the moneys are not collecting some of it. In some cases, in many cases, the people who are paying the moneys are also benefiting from it but they are not paying the moneys when they make the decision to drive or not to drive the motor vehicle; and that is very similar to what Mike McGill was saying.

Remove the subsidies from motor vehicle use and, finally, put the revenues raised into improving our transit systems into giving more transit service, into reducing property and sales taxes that are now subsidizing motor vehicle use, and into redressing the imbalance, the equity concern between the low income and the rest of us.

Thank you.

Senator CRANSTON. Thank you very, very much for a very interesting slant on all of this.

The final member of this panel to make an opening statement is Roger Loomis, director of Varian Commute Alternatives Program, director of security at Varian.

STATEMENT OF ROGER LOOMIS, DIRECTOR, VARIAN COMMUTE ALTERNATIVES PROGRAM; DIRECTOR OF SECURITY, VARIAN CORP.

Mr. LOOMIS. Thank you very much, Senator, I appreciate this opportunity to give testimony before your subcommittee.

I am here today to summarize Varian's accomplishments in reducing traffic congesting, improving air quality, conserving fuel, and to recommend actions we believe the Federal Government could take to reduce traffic congestion and improve air quality.

Varian established a ridesharing program in early 1980 in response to the gas crisis which achieved a moderate success of 17 percent in ridesharing, which was typical for the county. During 1983, new challenges facing the corporation culminated in Varian establishing a more aggressive commute alternatives program. We had run out of parking spaces at our Palo Alto site and were faced with the prospect of developing what little land we had left for parking rather than buildings.

It was also becoming increasingly difficult to recruit employees, as they were being forced to move further and further away from their job site because of rising housing costs in the immediate area. At the same time, surveys of our headquarters community identified traffic congestion as the No. 1 public concern.

In order to address these concerns, Varian decided to embark on a program to significantly increase ridesharing by its employees. We began by conducting focus group studies with our employees to identify the most cost-effective ways to motivate them to use ridesharing and implemented a stepped-up new commute alternatives program in March, 1984. Within 1 year, we increased our ridesharing from 17 percent to 40 percent. The success of the program eliminated the need to expand our parking and, instead, allowed us to make better use of our undeveloped land. We were able to more effectively recruit employees and we received considerable praise from the local community for the significant contributions we had made in reducing traffic and improving air quality.

Since 1984, Varian has continued to improve and refine its commute alternatives program and has now achieved a 43-percent employee ridesharing level at our corporate headquarters. Our ridesharing program has resulted in the elimination of 95,000 vehicle trips, over seven and a half tons of air pollutants, and the consumption of 88,000 gallons of gasoline each month. Needless to say, the program has been extremely well received by our employees.

Now the cost of programs necessary to effectively reduce vehicle traffic and air pollution in the high urbanized regions like the Bay Area are beyond the funding capabilities of local government. To get the job done, it will be necessary for the Federal Government to also provide some financial support and incentives. In particular, we recommend that the Federal Government establish a tax credit system for employers who promote ridesharing and for employees who take advantage of it; second, provide Federal funding to develop a coordinated and comprehensive rapid transit system to serve the Bay Area and establish adequate bus feeder service; third, fund R&D efforts to develop alternate power sources for vehicles such as electrical- and solar-powered engines.

I would like to, again, express my appreciation to this subcommittee for sharing these views. Thank you very much.

Senator **Cranston**. Thank you a great deal; I appreciate those comments.

I now have a few questions to ask and I would like to reserve the right to submit some in writing, since we do not have time to cover everything I would like to go over with you. And, if you could reply within 2 weeks, I would appreciate that.

Clearly, we can no longer plan our transportation strategies to satisfy the single objective of moving as many vehicles somewhere as possible. Our new policy has to take into consideration land use, air quality, and economic considerations. The goal really has to be to move as many people as possible in a given place. This requires a better mix of transportation methods to enhance the advantages that each one may offer.

The effectiveness of both public transit and highway construction are enhanced when developed in a coordinated manner. Roads that lead to transit terminals make mass transit more convenient and useful for commuters.

In adopting propositions 108 and 111, California accepted a more flexible approach for the use of additional funding generated by the new gasoline tax. Local governments will have the discretion to use this funding for either roads or rails.

The questions I would like to ask you relative to this are:

How can Federal assistance encourage such a shift of emphasis from vehicles and people; and

How can we improve Federal transportation policies that will allow states, localities, and regions the flexibility to choose the most appropriate mix of transportation approaches?

Who would like to start? Yes, Mr. Holtzclaw.

Mr. **Holtzclaw**. Thank you, Senator.

Yes, I would urge that the program that replaces the highway trust fund, the Interstate system, whether it is a combined one single trust fund or however it is administered, that the monies come to the local governments and the State governments with three criteria. And I think that is important, that you should have overriding criteria. We should have flexibility locally but overriding criteria to guide the use of the moneys. One, repair existing roads; two, operating subsidies to transit systems, and these could be performance-related so that it is related to how many vehicle miles, how many passengers they carry; and third, that any new moneys, any new construction, be related to getting people out of their car, reducing the vehicle miles traveled or, as we call it, auto mileage, reducing the number of trips, getting people out of all the cars so that it encourages pedestrian use, it encourages shortening trips, and it could even be tied to land use changes that encourage mixed-use, in-field development, mixed-use being both local commercial along with residential.

Senator CRANSTON. Any other comments on that?

Mr. McGILL. I just had one thing, Senator.

I think that it would be useful to consider requiring that the local matching share for any Federal grant for transportation purposes be paid in the form of user fees so that, again, the cost of using various transportation alternatives in the region is properly reflected and people will then choose, voluntarily, to take the least expensive alternative, which is not driving alone.

Senator CRANSTON. A few local governments have adopted ordinances that reward employers who have established company transit programs like the one that Varian has adopted.

In what ways do you think we might develop significant Federal efforts and incentives to encourage others in local government and in local businesses to proceed in that fashion?

Mr. McGILL. I would like to make a couple of suggestions.

Right now the Federal income tax law is structured in such a way that employer-provided free parking is not a taxable benefit for an employee. But, if an employer provided a transit allowance or a travel allowance, it would be a taxable benefit for the employee.

We found that, in California, one of the most effective ways of reducing people driving alone to work is elimination of free employee parking. And one of our recommendations is that free employee parking be eliminated and replaced by an employer-provided transportation allowance.

Now the most reasonable approach, in our view, would be for an employer to say, "OK, from now on I am charging you $75 a month to park; but I will give you $75 a month as a travel allowance." An employee then has the incentive to car pool with two other people and pocket $50 a month or take transit and pocket about half that allowance, or they can continue to drive alone and pay it all back to their employer.

Senator CRANSTON. That is an interesting suggestion.

Ms. LEONARD. I would like to make a comment on the issue of paid employer parking.

In and of itself, I do not think it has to be a bad idea. I think we have to look at the question fully before that is the avenue that we take because it seems so easy.

For one thing, if you are talking about an employer the size of Lockheed here in Sunnyvale giving each employee essentially $75 a month, the total amounts to several million dollars a year. And, even if you assume that part of that money will be returned vis a vis parking fees, I think you are talking about a fairly large expenditure at a large company. Now that is something that certainly needs to be taken into account.

Employers recognize that they will have increased responsibilities to participate in the solution to our transportation concerns; however, when you are talking about costs in the millions of dollars, there needs to be some account taken of that. And the suggestion that I brought up earlier that I think should be explored in this context is the idea of tax credits for that company; that is one way to look at it.

Another thing is that, to require employers to charge employees to park in the company lot, in a sense in a vacuum absent the kind of transit services that provide reasonable alternatives for those employees, seems to be putting an undue burden on employers. So I think, before we jump on that bandwagon as the simple solution, I think we need to think it through both in terms of dollars and in terms of how realistic it really is.

Mr. LOOMIS. Senator, I would also like to comment on that and that is, from the employer's perspective, we would like to see more things that encourage people to change their behavior and their attitudes towards commuting rather than punitive measures. And if we look at charging for parking, the employees are going to interpret this quite often as something punitive.

We would encourage the Government to seriously consider using tax credits. They have used this in the past to motivate people to spend money and devote efforts in areas successfully; and we believe that same method could be used to encourage employers to invest money in promoting ridesharing. It is costly and, as you are very well aware, employers in this area are faced with foreign competition, there is erosion in markets, it is difficult making a profit, staying in business; and these burdens of environmental costs, commute costs, are all adding to the cost of operating a company.

So we believe that there is really a real need for tax incentives, not only for employers who spend money out of solo-car driving, but an incentive to employees who use those methods by a tax credit on their income tax each year.

Senator CRANSTON. As an employer, what did you think of Mr. McGill's suggestion of charging employees, say, $75 to park but giving them $75 for transportation so they can make their choices?

Mr. LOOMIS. Well, I guess there is always two ways to skin a cat. I just have a feeling that, by giving it to them and them giving them an allowance, it gets into who is going to pay for this? Does this become an employee benefit? To what extent do employers get tax credits on this? How do they account for it as a business expense?

I guess my main concern is adding to the cost of doing business in an area where the costs are already skyrocketing to the point where it is difficult to stay in business. So we believe that it would be better to have incentive programs such as tax credits.

Senator CRANSTON. Do you have any comment on Mr. McGill's idea?

Ms. LEONARD. Yes. I think you need to provide incentives, as Mr. Loomis has indicated; and there also needs to be reasonable alternatives. I mean, I think the net effect in many companies in this valley, of the $75-solution, as Mr. McGill put forth, is going to be that employers are going to end up putting out $75 a month times thousands of employees; and that is going to add up to real money. And the reason that I think the program is likely not to be as successful as the intention is, is that there are not the alternatives in all locations down here in terms of transit, HOV lanes, et cetera. If there are no options, it is really hard to push them.

Mr. **McGill**. Senator, just to add, our package is to provide exactly those options so that you have the choices available at the time the fees are imposed or the parking is eliminated. We do not intend to say do it now without providing the commute lanes and the bus service.

One thing that is happening in Los Angeles right now is that the South Coast Air Quality Management District is saying to employers that you must average 1.62 employees per car. So employers in Los Angeles are posting guards at the gates to the employee parking lots, counting the number of people in each car as they drive through.

Now the South Coast Air Quality Management District is not providing more car pool lanes or more bus service or rail transit; they are simply saying to an employer, "Make your employees car pool, you take the heat; and, if you don't succeed, we are going to fine you $25,000 a day."

Senator **Cranston**. As public transportation is used more and more to help solve the problems of congestion, air quality, and productivity, technology is obviously going to be playing an increasingly important part in expanding the current capacity of transportation systems.

High speed and magnetic levitation trains, just to name a couple of examples, could clearly make mass transit an even more viable alternative in the future. UMTA currently administers only a very modest program for the purposes of extending our research and development in this area.

Do you have any thoughts as to how the Federal Government might more effectively assist these technological advances?

Mr. Loomis.

Mr. **Loomis**. That is difficult.

Unfortunately, everything costs money and money is hard to come by these days. There are a lot of demands and a lot of problems our society is faced with, environmental and other, and there is only so-many dollars can go so far.

I think one has to look at short-term versus long-term solutions and we have technology that exists today for rapid rail and rapid transit systems and I think a lot of the funding should be directed toward completing rapid transit systems using existing technology. Although I believe funding should be available to R&D and develop new and exotic technology for the future, we have immediate needs. And I think really our focus and our effort should be probably directed in that area, such as extending something like a BART system looping around the Bay but providing very good, effective feeder bus service, which is a big inhibitor to the use of such systems.

Senator **Cranston**. Any other thoughts? Yes?

Mr. **Holtzclaw**. Senator, I would urge that one way that this would be helped would be to combine the planning for air and intercity transportation, mass rapid rail between cities. We keep hearing that we are going to have to substantially expand our airports, they are getting overused.

The Los Angeles to San Francisco area was, and I think still is, the most heavily used air corridor in the nation; that corridor could also—a lot of the load off that corridor could be taken by a rapid train between the Los Angeles area to the Bay Area to Sacramento and then down south to San Diego, so that you could take a lot of that load off of the airports probably at a substantial savings. But research into that and analysis of that should be done so that you are able to look at those two modal alternatives together.

Senator CRANSTON. Let me put it to each of you, finally, the same question I put at the end of the previous panel.

If you could see to it that one change occurred in the surface Transportation Act to meet the most pressing need, what is the one thing you think we have to make sure we get done?

I will start with you and then go down the table.

Ms. LEONARD. Just very simply, I think we need to look at the criteria needs; the first and foremost criteria needs to be that our transportation systems are looked at as systems and that we eliminate any kind of red tape, if you will, in the process of transportation funding that accounts for the redtape and jurisdictional differences and what have you and turn our transportation system in our region into a, if you will, a market-oriented system that is genuinely designed to get people out of the single-occupant vehicle and into another mode of transportation. That needs to be our first aim; and all other requirements and criteria need to become secondary to that.

Senator CRANSTON. Mr. Holtzclaw.

Mr. HOLTZCLAW. What I would say is a sort of a generalization of what she is saying and what Mike will say.

I think, if we remove the subsidies from motor vehicle use, then all of the other things that we want could follow from that and probably would follow from that. We would have to provide transportation so we would improve our transit services, it would bring more equity.

I would like to suggest one other thing that you could keep an eye on right now; the Senate version of the Clean Air Act has in it the Bingham Amendment that would allow the Governor of a State like California to take monies from highways and put it into transit systems at the same Federal match in areas that are nonattainment, that do not attain the Clean Air Act.

Keeping that in the final bill that comes out would be a great improvement, it would allow more flexibility locally.

Senator CRANSTON. Mr. McGill.

Mr. MCGILL. Rather than repeat what the two previous witnesses have said, which I agree with, I would like to suggest looking at the Federal gasoline tax as a user fee, not only to provide an increase on money to the trust fund, but also as a user fee to fund the entire operating budget of the Department of Transportation and the Environmental Protection Agency. This would go a ways to addressing the national debt issue and would broaden the concept of user fees to include the administrative activities required to sustain our national transportation and to preserve our environment.

Senator CRANSTON. Thank you.

Mr. Loomis.

Mr. LOOMIS. I believe I would allude to some remarks Rod Diridon had made that I think what we really need is a pot of money that is available for local communities to use at their discretion and solve their own transportation problems in the most cost-effective way without earmarking it for specific developments or programs, but allowing it for use such as development of rapid transit in an area like this.

Senator CRANSTON. I thank you all very much for your testimony; it is very helpful. We may be writing to you with some additional questions; please reply within 2 weeks.

Thank you very, very much.

We will now go to the final panel, which is the UMTA oversight panel.

I welcome you to this panel. I think two of the members—Mr. Hill of GAO and Mr. Diaz of UMTA—were with us yesterday in the first hearing in this series in Los Angeles.

I would like to start with both of you please do not repeat what you said yesterday, but add any further thoughts you want to express to us at this time.

Let me start with you, John.

STATEMENT OF JOHN W. HILL, JR., ASSOCIATE DIRECTOR, TRANSPORTATION ISSUES, RESOURCES, COMMUNITY AND ECONOMIC DEVELOPMENT DIVISION, GENERAL ACCOUNTING OFFICE

Mr. HILL. I will do what I can not to repeat everything I said yesterday but will add a couple of extra thoughts in there.

I am pleased to be here today to discuss assessing how well——

Senator CRANSTON. Let me interrupt and ask, Mr. Hill, if you or Mr. Diaz have seen this chart that Rod Diridon gave us?

Mr. HILL. I have not seen it.

Senator CRANSTON. I would be particularly interested in Mr. Diaz' and your response; let me just hand you a copy so you can look at it.

Mr. DIAZ. Thank you, Senator, I would be happy to.

Senator CRANSTON. Let me hear any thoughts on that when you testify.

Excuse me for interrupting you, John.

Mr. HILL. I am pleased to be here today to discuss our work assessing how well local transit authorities manage grant funds provided by the Federal Government through UMTA and the nature of UMTA's oversight activities.

In several ways our prior and current work, as well as DOT's Office of Inspector General, has shown that the Federal mass transit programs are at high risk from mismanagement.

UMTA, as the agency that reviews and approves mass transit grants, is responsible for ensuring that grantees are complying with the various requirements stipulated in the Urban Mass Transportation Act and in uniform grant regulations including Federal procurement and contracting standards.

In lieu of more direct oversight, UMTA relies on grantees certifying their compliance with all applicable Federal requirements. To supplement self-certification and oversee grantees' compliance, UMTA's regional offices have a number of monitoring tools. As shown in the first chart, the monitoring tools include grantee financial and progress reports, site visits, annual audits, and triennial reviews.

Our work at two grantees and analysis of 25 OIG reports identified grantees' questionable use of over $100 million from grant funds. This work showed that grantees have not always complied with grant conditions and Federal requirements, even though they had certified that their internal management controls systems were in place to ensure such compliance.

Our next chart summarizes the types of grantee mismanagement found. One UMTA grantee had been improperly charging certain costs to UMTA projects since 1974 resulting in an estimated $17.9 million in overcharges. In another case, a grantee had included land acquisition and construction claims of $6.3 million that were not in the grant agreement.

Another grantee may have used UMTA-funded inventory in nongrant projects resulting in about $4 million in unauthorized purchases.

An OIG survey disclosed that grantees have not acted to close out grants at project completion. Terminating grant close-outs are particularly important because unused funds could be made available to other approved projects. UMTA believes that grantee close-outs may be a problem nationwide. Many of the problems that I have just mentioned should have been detected by UMTA oversight mechanisms.

In March 1989, we reported on UMTA's oversight of the Southeastern Pennsylvania Transportation Authority's procurement activities. Major procurement problems had been identified in a 1987 UMTA-funded procurement reviews.

Our report disclosed that, although UMTA's review of SEPTA did not include a detailed procurement assessment, UMTA's review indicated that SEPTA had complied with procurement requirements. Further, single annual audits performed by public accounting firms did not include an evaluation of SEPTA's compliance with Federal procurement requirements.

We concluded that UMTA's monitoring procedures were inadequate to detect the weaknesses in SEPTA's procurement system and we made several recommendations at that time to the Secretary of Transportation.

UMTA also requires grantees to submit quarterly financial and progress reports. However, at one UMTA region, we found that reports submitted by grantees either did not contain enough information to be useful as a monitoring tool or UMTA did not use them for the purpose that they were intended.

UMTA's acting regional manager told us that these reports did not contain the information that they needed to detect problems.

Based upon our work, the DOT identified UMTA's oversight of grantees as a material internal control weakness in its 1989 report to the President of the United States required by the Federal Managers Financial Integrity Act. One reason that UMTA cited for its oversight problems is its ever-growing work load and shrinking staff.

The report to the President also stated that, in order to improve project oversight, additional staffing is needed. To correct these management control weaknesses, the report states that UMTA will require additional resources in both fiscal year 1991 and in 1992;

and, in its 1991 budget, UMTA requested an additional 10 staff years for grantee oversight.

Mr. Chairman, my written statement also provides background information on Bay Area mass transit projects, discusses our work on congestion, and outlines some of the issues to be debated during reauthorization hearings over the next year.

In the interest of time and so as not to duplicate the testimony of other witnesses, I will close by saying that the issues raised today require both innovative thought and action to find the appropriate solutions.

We appreciate the opportunity to participate in this debate and would welcome the opportunity to testify upon the completion of our work.

I also apologize for repeating any of the testimony that I gave yesterday but I thought that some of it was important to set the background for some of the questions that someone might want to ask.

Senator **Cranston**. Thank you very, very much.

Now we will hear from Mr. Diaz, general counsel for UMTA.

STATEMENT OF STEVEN DIAZ, ~~GENERAL~~ CHIEF (See P. 81) COUNSEL, URBAN MASS TRANSPORTATION ADMINISTRATION, ACCOMPANIED BY RENE MARLER

Mr. **Diaz**. Thank you, Senator, and good morning. I appreciate the opportunity to come before you again here in San Jose.

Before I undertake my comments that I have prepared, let me say that I am somewhat surprised by an apparently different tone we have this morning than we had yesterday morning; but I am very happy to have the opportunity to discuss some of the particulars raised by Mr. Hill this morning. However, that would obviously engross the time I would need now so I would hope to have that opportunity during questioning later on.

Senator **Cranston**. If you want to make those points now, go head.

Mr. **Diaz**. If I may, when I conclude the remarks I had prepared, I would be very happy to do that. And I thank the Senator for the courtesy.

Not to repeat anything that I did say yesterday, I will note, just at the beginning, that we have active grants to 12 grantees in the San Francisco, Oakland, and San Jose urbanized areas which amount to $1.3 billion, which may be an item of some interest this morning.

In response to the desire for increased grants management oversight, UMTA has undertaken a number of actions to strengthen and improve performance. In 1989, UMTA issued final regulations implementing the project management oversight, or PMO, program mandated by the Surface Transportation and Uniform Relocation Assistance Act of 1987.

I see the chart is removed; the PMO program, the Senator may note, was not on that chart.

This process permits UMTA to use up to .5 percent of the funds made available in each fiscal year under its capital grants programs for PMO of major capital projects.

UMTA has developed a national project management oversight program for major capital projects using independent contractors. Under this program, UMTA has assigned independent contractors, paid by and reporting directly to UMTA, to perform project management oversight functions on certain major capital projects. This arrangement allows UMTA more carefully to monitor certain major capital projects without increasing its in-house staff.

The program has two parts. First, there is project management oversight which is designed primarily to aid UMTA in its role of ensuring the successful implementation of federally funded projects. Second, there is the project management plan, or PMP, required of all major capital projects as a condition of receiving Federal assistance.

The PMP is designed to enhance a grantee's planning and implementation efforts, as well as to assist UMTA's grant application analysis efforts.

UMTA currently has 12 contractors who have been retained through the competitive procurement process to carry out project management oversight activities, which now involve work in some 33 different projects around the country.

A provision in UMTA's fiscal year 1990 appropriation law assists the agency in this effort by amending the statutory project management oversight language to allow UMTA to expand the use of those funds to pay contractors to perform procurement, safety, and financial management audits of our grantees. We are pleased both with the enactment of that provision and with the way that program is working.

Third-party contracting activity ensures that funds appropriated under the UMT Act are expended in the most efficient and effective manner. UMTA's third-party contracting activity consists of three principal elements. First is guidance and technical assistance; technical assistance by way of advice is provided both by headquarters and field personnel.

In addition, UMTA has developed a handbook for third-party contracting that describes the fundamental principals of contracting with Federal funds and explains, in general, the major do's and don'ts. The handbook was recently tested in field training and, following final revisions, will be made available as an aid to all of our grantees this fiscal year.

UMTA has identified certain categories of contract activity which we believe are particularly susceptible to abuse and therefore require special oversight. Included in this category are sole-source contracts and single-bid awards. UMTA has a system in place whereby selected contracts of this type are required to be submitted to UMTA for review. In turn, UMTA has established a third-party contract review board, internally, which reviews such matters.

Second, training; procurement training for both UMTA and grantees' staff is provided through a combination of in-house and contract training in the fundamentals of government contracting as well as in specialized courses in particular areas where special need has been identified, as in the areas of negotiation and cost-price analysis.

Third, on oversight; beyond the provision of technical assistance and training, UMTA has a duty to monitor the ways in which grantees spend UMTA assistance in carrying out authorized program activities. UMTA's circular 4220.1B requires recipients operating 100 or more buses to self-certify that their procurement systems meet the minimum requirements of the circular.

Self-certification, which has its origin, Senator, as you know, in the UMTA statute, includes provision of a system description outlining the basic elements of the grantee procurement process. This summary is reviewed by UMTA staff as part of our training and review activity and in other monitoring processes.

Third-party contracting review has also been identified by UMTA as an important element of overall UMTA management oversight activity under the UMT Act, as well as under the Federal Managers Financial Management Integrity Act. As such, increased staffing and contract resources have been budgeted for this activity over the next several fiscal years.

Third, triennial review; Section 9 of the UMT Act also requires that the Secretary shall perform a full review and evaluation of the performance of every recipient in carrying out grant programs with specific reference to compliance to statutory and administrative requirements and consistency of actual program activities with the proposed project program. These reviews must be done every 3 years under the UMT Act and focus on 19 specific program areas.

It is important to note that the triennial review is not an audit, but rather, a practical and reasonable approach to maintain a credible stewardship of the grant program.

UMTA welcomes any recommendations that may improve the effectiveness of our oversight program. We do have concern, however, with recommendations that would change the scope and direction of the triennial review beyond that which was originally intended and beyond UMTA's resources, capabilities, or legislative authority.

In recent years, given the staffing levels at our regional offices, several regions have experienced difficulty in meeting their triennial review schedule demands. To alleviate this condition, the Department of Transportation's Transportation Systems Center is now providing services as a supplement to UMTA's staff reviews; and that is a program which is currently in place.

Let me conclude my prepared remarks by emphasizing that UMTA takes its responsibility for identifying internal control weaknesses very seriously and is aggressively pursuing actions to strengthen its oversight capabilities.

And, in that regard, Senator, I would now like to turn to the four points raised in the prepared written testimony submitted by the General Accounting Office yesterday, to talk about some specifics.

Most of our efforts have taken place in terms of tightening up since SEPTA; and I would point out that this team has only been in place since the confirmation of Administrator Clymer, as the Senator will remember, in November of last year; and we think we are moving at a very good clip although we would like to move at the best clip possible.

The first concern raised in Mr. Hill's written testimony, although it is not specifically identified here—and that is the problem with each of these cases is that they have not told us which particular cities and which particular grants they are commenting upon, although we understand that their audit work is just beginning—we believe it concerns Chicago. And it is my understanding that that audit is not yet closed; the grantee is still contesting the findings and has come forward with supplemental new facts which it believes should modify the audit conclusions.

UMTA, for the moment, accepts and agrees with the audit conclusions of the inspector general and we are currently negotiating with the grantee in order to effect a satisfactory closure of that matter.

The second item raised, I believe, relates to San Jose and the Guadalupe Corridor light rail program, which is not very far from where we sit this morning. Now UMTA, it should be pointed out, asked the inspector general to conduct this audit because, as I testified in Los Angeles yesterday, we do not have internal auditing capabilities.

The entire premise of the creation of the Office of the Inspector General in the Department of Transportation was to take separate auditing units out of each of the modes, put them in one place, and then have a departmental Office of the Inspector General.

So we do relate very closely with that office; they do perform audit functions for us. We did ask for this particular audit. Although $29.5 million of grant proceeds were questioned in the manner that they had been spent, the result of the audit was that $6.3 million had not been appropriately spent.

And by that I mean, Senator, that these were found to be ineligible costs principally relating to matters such as land acquisition or highway-related work in matters outside of the full funding grant agreement. The $6.3 million, determined by the auditors to have been spent by the grantee outside of the confines of the full funding agreement, were then recovered by UMTA from the grantee and the matter has been fully and satisfactorily closed.

The third item raised, we are informed by Mr. Hill, relates to Pittsburgh, although, since we didn't know that until literally just a short while ago and based on the information provided in the statement, we are unable to identify exactly the reference. We do not know. And, given the opportunity, we will be happy to provide a full response to the concerns addressed in the third item.

Senator CRANSTON. Please do that when you can.

Mr. DIAZ. We will do that and I will ask Mr. Hill, if he would, to provide me promptly with a letter explaining which project this is and clearly defining the issue because we have some difficulty with the brief reference here.

And the final matter appears to be one which relates to the close-out practices nationwide. And close-outs are certainly an administrative priority with us now. We are focusing on close-out practices and we hope, as we discussed in Los Angeles yesterday, Senator, that the increased staffing requested for the regional offices will provide us with the additional work years necessary in order to be able to assure that such matters which have necessarily received lower priority than other more pressing matters will now receive the fullest attention that they deserve.

We understand that the Senator is sympathetic to that position and we therefore anticipate relief. And we thank the GAO for helping us to identify that program need and thereby to give us the support that we may need in persuading the Congress.

And, with that, Senator, I would be happy to answer any questions you may have.

Senator CRANSTON. Thank you very, very much.

We will now hear from Bill Hein, deputy executive director of the Metropolitan Transportation Commission.

STATEMENT OF WILLIAM HEIN, DEPUTY EXECUTIVE DIRECTOR, METROPOLITAN TRANSPORTATION COMMISSION

Mr. HEIN. Thank you, Senator.

My remarks have been prepared so I will not bother reading them but I would just like to make a couple of brief points in the interest of time.

Thank you very much for your kind remarks about MTC in this region. I think any success that we may have had certainly is attributed to the partnership that we have tried to establish amongst the transit operators, local government, and our State and Federal partners in providing transportation.

You have asked, on this panel, that we focus on the owner side. For the record, I would like to say that our dealings with UMTA have been very positive and very professional. There has been, of course, one troublesome area, and which you heard earlier today, and that was with reference to the alternatives analyses.

Certainly they have a laudable purpose of trying to ferret out the best possible types of investment. However, in fact, they are inhibiting our transit development at a time when our urban areas are facing both the economic consequences of congestion and the challenge of planning for cleaner air.

There have been a number of short-term fixes which have been suggested by various panelists today and our chairman—you have asked Rod Diridon to look at his chart and see how we could shorten that path; we will certainly assist him in that.

I will also give you our comments which we have made to UMTA on some short-term fixes that could be made to the alternatives analysis process.

But the fact is, now we have an opportunity for a permanent fix and that is in the reauthorization program.

The broad outlines of the program have really been outlined by Secretary Skinner's National Transportation Policy and a key component which states that moving towards greater flexibility in use of transportation funds at all levels of government. And we talked to a number of panelists today about the difficulty of categorical programs.

The fact is, we do have cookie jars and monies are in cookie jars; we can reach into the interstate cookie jar and fairly easily build a project but, when you go to the cookie jar for transit rail, you find a very big lock on it and that lock is labeled alternatives analysis.

Though it is not intended, I am sure, the fact is, the whole process tends to make the Federal transportation program almost antiurban.

Mr. Best, I think, put his finger on the fact that the key to the way we need to deal with flexible funding is to identify the system. Once that system is defined, then investment should be made anywhere on the system, whoever owns whatever part of it, irrespective of the mode, whether it be rail, bus, highway, or whatever.

The Federal interest, then, should focus on overall results, not just the artificial structure that is now contained in the alternatives analysis.

In your questioning earlier, you raised a question about formula funds versus discretionary funds and you raised a question about equity concerns versus overmatch. The fact is that these two questions are linked, or the answer to those questions are linked. Right now, there is no question that we need to seek overmatch in order to move our projects. It is the only way we can move our projects.

The Federal program, however, should be stable and a strong case certainly could be made, and has been made, for an increased funding. It should be predictable; and by that I mean it should be geographically formula-based. Stable and predictable funding will allow the local areas to develop the necessary extra resources necessary to deliver the programs.

Part of the reason it is difficult sometimes to go out and ask the local jurisdictions to raise money is because we cannot tell them with any assurance what level of funding we could expect from the Federal Government. So I believe, by providing a stable, predictable formula-based program, we address both the issues; we address the issues of equity and overmatch.

Finally, as we start at the beginning, the program needs to flexible. I would argue that, if you give us a budget that is a formula program and flexibility, we produce the best possible region for our system. If you continue to give us cookie jars, we will continue to be great grants people but we will be lousy planners.

Thank you.

Senator CRANSTON. Thank you a great deal; I appreciate your testimony.

We now come to Ed Harrington, Assistant General Manager of Finance for San Francisco's Muni Transit Service.

STATEMENT OF EDWARD HARRINGTON, ASSISTANT GENERAL MANAGER, FINANCE, CITY AND COUNTY OF SAN FRANCISCO MUNICIPAL RAILWAY

Mr. HARRINGTON. Good morning, Senator.

Let me first say that I am appreciative of your attentiveness after all of these speeches you have been hearing this morning; we do appreciate that.

Senator CRANSTON. Thank you very much.

Mr. HARRINGTON. My name is Ed Harrington and I represent the city and county of San Francisco and its Muni Railway. I am here today to affirm our support for UMTA and to offer an operator's perspective of the problems and issues that UMTA has to deal with on a day to day basis.

First, I would like to make sure that we are clear that our relationship with UMTA we consider to be a very successful partnership. As a large trans provider, we have been the recipient of substantial grants from the Urban Mass Transportation Administration. Without their support, we would not have been able to rebuild our cable car system; our light rail system; and many of the buses, diesel and trolley; and the facilities that we have in the city and county of San Francisco.

Because of these investments, we are able to carry 760,000 passengers a day. Over 20 percent of public transit ridership in California is carried on Muni Railway every day. The partnership between——

Senator CRANSTON. What was that figure?

Mr. HARRINGTON. Over 20 percent of the mass transit riders in California are carried by the Muni Railway of San Francisco each day.

Senator CRANSTON. That is very interesting.

Mr. HARRINGTON. Because of that partnership, the city of San Francisco has not had the same kind of congestion problems that some other urban areas have had in the United States. If we had the same level of car usage in San Francisco, as you know, it would have ground to a halt years ago; we would not have been able to move at all.

I would like to now comment on what seems to be the reason for this meeting today, which is the concern for possibly some UMTA practices that may be subjected to fraud and abuse of the HUD-type nature; and that seems to be a concern we might have.

I do not believe that there is a reason for any substantial concern therein. I think what you must realize is that the mass transit community in the United States is actually a very small one. We have very few precious Federal dollars to deal with and we watch each other to see who gets grants and how they use them and what is happening with those grants.

If there was any substantial funding going to what might be considered undeserving operators, you would have heard screams from coast to coast over the last 10 years about that funding.

This is not to say that every individual operator always agrees that the priority that is placed on an individual competitor's project is always one we would like to see placed on their project; but we do not believe we have seen funds going to projects that will be termed fraudulent or abusive in any kind of Federal UMTA mandate way.

With that out of the way, I think we do have to talk about some of our observations about how UMTA operates. First is that the UMTA program is structured so that the burden of management compliance is on the operator through a self-certification process.

We endorse this concept because we believe it fosters good project management among the grantees and also because, in theory, it frees UMTA staff from the minute details of grant administration and allows them to focus on the broader issues they should be focusing on.

Unfortunately, we believe the regional staffing has become too thin. For example, the staff in the San Francisco regional office has shrunk 25 percent in the last 5 years. In order for us to deliver projects on schedule, we need to have access to staff with decisionmaking authority and we believe that it is most appropriate at the regional level where staff are familiar with our projects.

It also appears to us, in the current environment, that the limited staff are almost encouraged to focus not on innovative measures to enhance public transit but rather to avoid negative feedback as best they can.

There can be no doubt as to the past administration's position that the Federal Government's role in mass transit should be a decreasing one. While the current administration does not seem as intent on deleting our program, we believe we have a distance to go to what might be considered a preferred program within the current administration in Washington, DC.

In the absence of support from administration leaders, the most visible feedback that this agency seems to get comes from the Department of Transportation's OIG, Office of Inspector General. And, quite frankly, I do not believe I have ever seen anyone from that office congratulate UMTA for a job well done.

There is no process here that awards and rewards the fact that we are getting people out of their cars and into mass transit projects. What we really have instead is a system that emphasizes dotting i's, crossing t's, making sure that you do not get caught making a mistake in some way that may quite often be inconsequential as opposed to a system that says we really are doing what this thing was set up to do and we are actually accomplishing some of that.

Quite frankly, I am impressed that some of the good projects that get through the maze find their way through that maze.

Additionally, these problems are compounded when we have conflicting rules and regulations. For example, UMTA has a privatization policy that basically says you should contract out jobs whenever you can if you can become more efficient. We also have what is called section 13C which requires that you maintain jobs for current employees.

So, if I go to UMTA and ask UMTA for some new buses for a route, they have a couple of choices because section 13C says that I must maintain that route without hurting my present work force. But privatization quite possibly could say that I should contract out that route but provide the buses to the outside contractor using some Federal funds to buy those buses. There is really no way out of some of those types of binds when you have rules and regulations that are, in fact, conflicting at certain times.

And those are not the only ones; I would be happy, in response to questions, to give you some other examples of those types of things.

My final comments were to encourage a stable, flexible funding process for mass transit. That has been better said by others before me, especially Bob Best and so I will conclude my comments but would be happy to answer any questions.

Senator **Cranston**. Thank you very much; I appreciate your testimony a great, great deal.

Finally, in these opening statements, is Lou Montini, Assistant Director of the Santa Clara County Transportation Agency.

Thank you for being with us.

STATEMENT OF LOUIS MONTINI, ASSISTANT DIRECTOR, SANTA CLARA COUNTY TRANSPORTATION AGENCY

Mr. MONTINI. Thank you, Mr. Chairman.

I am Lou Montini, the assistant director of the Santa Clara County Transportation Agency, as the operator of this county's bus and light rail systems.

It is my pleasure to appear before you today as part of the Bay Area operator's panel to provide comments with respect to UMTA's regulations and procedures from the perspective of the Santa Clara County Transit District.

Before I elaborate on specific matters regarding UMTA regulations and procedures, I would like to indicate to you that the Santa Clara County Transit District continues to have an overall positive working relationship with both the regional and Washington offices of UMTA.

Much of the problems that this district has encountered, particularly in the past year, may be a direct result of the current shortage of experienced professional staff at all levels of UMTA. This situation has become abundantly clear as we have experienced review and approval delays in both the area of grants and planning studies.

Unless the staff situation is corrected, these problems will not only prevail but will intensify. It is imperative that both Congress and the administration reverse the staffing dilemma at UMTA to increase the budget for operations at both the regional and national levels of UMTA.

I would now like to direct my comments back to the concerns alluded to earlier, first, in the area of grants and UMTA regulations.

In September 1989, the Santa Clara County Transit District submitted to UMTA region IX a section 3 grant application for 20 expansion buses. To date, nearly a year later, the district has yet to receive formal written notification on either approval or rejection of that grant.

Over the past several months, the district staff has been told verbally that the 20 expansion bus application was under review. Through these verbal discussions, it has also become apparent that the application approval has been placed on hold by region IX because of its dissatisfaction with this district's established and adopted private sector participation process which was developed based on UMTA guidelines in circular 7005.1.

The district's process is on file with region IX since the spring of 1988 and UMTA has never previously indicated problems with the district's process. It is our understanding that Congress directed UMTA to establish guidelines pertaining to private sector participation but did not pass on statutory authorities, particularly as they relate to grant approval. In fact, Congress was quite specific that UMTA did not have the authority to withhold grant approval based on private sector participation.

In the view of the district, all of the application requirements have been satisfied, including the private sector participation process. Approval of the 20 expansion bus application is very important to this district. With bus ridership reaching record levels and still rising, the additional buses which we hope to purchase through this grant are critical to our operations.

We have had to place into service older and less reliable equipment in order to meet the growing demand for mass transit in this county.

Second, in the area of planning studies and UMTA procedures, the Santa Clara County Transit District, in cooperation with the Metropolitan Transportation Commission, has been involved for some time now in a federally approved alternatives analysis and draft environmental studies for the Tasman transportation corridor. This is an important commute corridor linking the East Bay with the high-tech Silicon Valley employment centers such as Lockheed in Santa Clara County.

Over the past year, the necessary chapters to the alternatives analysis and the draft environmental study have been submitted to UMTA's Washington office for review and approval. Both the shortage of staff and UMTA's rigid policies pertaining to cost effectiveness and new ridership have created extended review and approval problems and delays for the Tasman corridor and have severely impacted the local alternatives selection process.

These are two examples of issues currently facing this district. As indicated earlier in my testimony, the shortage of professional staff at all levels of UMTA appears to be a serious problem which needs immediate attention by Congress and the administration.

Because of Federal and California goals for clean air and congestion relief in this century, it is imperative that transit grants and studies leading to improved mass transit systems be reviewed and approved in an expeditious manner.

Thank you for this opportunity to participate in this panel.

Senator CRANSTON. Thank you a great deal.

I would like to start, if I may, by going back to that chart of Rod Diridon's.

Have you all seen that chart?

Mr. Diaz, do you agree with fast track and status quo being pretty much the way it is? Do you believe (a), is that an accurate representation of how long it generally takes and the steps that have to be gone through; and (b), do you agree that it can be streamlined and shortened so that we can get decisions made faster but properly?

Mr. DIAZ. Thank you, Senator.

No, I have not seen this chart before; but if I understand it, it generalizes the process. Inasmuch as generalizations rarely serve analysis of such a complex process, I would have to say it is roughly correct. In a general way, the time schedules might be correct for some situations, particularly those that Mr. Diridon discussed. However, I do not share Mr. Diridon's view of the overall process of where the glue is and where the lubricant is.

If I may, I would like to distinguish between glue and lubricant. In part, this also responds to the comments that we just most recently heard.

The Tasman corridor, it is my understanding, is behind the BART extension as a local MTC priority. And that is an important point in the funding of any project because, again, as we explained in the hearing in Los Angeles yesterday, we rely very heavily on the local planning process. Here in the Bay Area, we are blessed with one of the most effective metropolitan planning organizations in the country, the MTC; one that we at UMTA hold up as a model to other areas.

However, the MTC has given this project a lower priority than other regional transit requirements. Further, the environmental review process which, of course, is a high, important public value, one which involves State as well as Federal law issues, is one that is also not completed in that project. In fact, is the Tasman project is further behind in environmental matters than the project for the airport extension of BART.

All of this is part of alternatives analysis. Alternatives analysis, we are being told by Mr. Diridon slows things down, it is very onerous; yet, on the other hand, we are being told by the General Accounting Office that we do not require sufficient documentation and analysis before we give approval to projects. And so, having displeased everyone, I have to suspect that we are on the right path because what we are doing is not requiring all of the academic controls or review of which one might conceive but, by the same token, we are providing sufficient documentary hurdles that our grantees are telling you that, to provide more, would seriously impair their ability to deliver transit services.

In fact, as you heard today and you heard yesterday in Los Angeles, there are a number of complaints that the level of documentation presently required already impairs the ability timely to deliver needed public transit services.

So, we are in sort of a quandary which is why I said yesterday, we really do look forward to engaging not only other elements of the Department of Transportation but the Congress and the General Accounting Office's assistance in working this process through.

These are rather complex problems we have because all of these values are high values; all of them need to be dealt with in a serious-minded and effective fashion. And, frankly, we are not willing to give up environmental review in order to get more transit, and we are not willing to give up a thoughful transit process in order to expedite some contractor's hope that public money will be delivered earlier.

We really have got to find a way through this thicket and we do need to work cooperatively in doing it. And we at UMTA think that the way things have been progressing, has been part of a constructive process. We hope to remain engaged in that constructive process.

Senator **Cranston**. I want to make plain that I am not suggesting that environmental impacts be ignored in any way; I do not what to cut that process. But I am concerned about the time that it seemingly takes to get decisions made; we do not have that much time left.

Can I ask if others of you have comments on this particular point?

Mr. **Hein**. We are not asking for the environmental process to be set aside, either, nor are we asking for a reasonable and rational progress process be set aside.

The difficulty is really not UMTA's problem; they have a limited source of funds and a great demand for rail projects. So my view is that the alternatives analysis process has been used as a rationing device, maybe not intentionally, maybe not deliberately, but, in fact, that has happened.

And you compound that with——

Senator CRANSTON. So what device?

Mr. HEIN. Rationing.

You compound that, then, with their own problems of turning around documents, the problems that you have to deal with all the documents of an AA in Washington rather than regionally, it inevitably is going to slow that down.

We have, in this region, a $3 billion-plus rail program which, as our Chairman Rod Diridon pointed out, has a consensus behind it. We have gone to the voters in county after county, and in several counties collectively, to raise moneys based on that $3 billion program.

We are requesting from the Federal Government less than 30 percent but that 30 percent is a critical key in making moneys flow. We have agreement, for example, to extend BART to San Francisco airport; that is where we are putting our Federal dollars. But we are having a long and lengthy process getting that AA going.

But, unless the Federal dollars go there, then the San Mateo County's monies are not going to go to Contra Costa and Alameda to build the BART extensions there. So we have this key that has to unlock it.

On the Tasman corridor, we are suggesting that 50 percent of that be funded federally. Again, that is a part of this overall, less-than-30-percent package; but we need to move these processes. Not only are we stalling these projects but we are stalling the whole regional program.

Senator CRANSTON. Mr. Hill, do you have any comments on this particular point?

Mr. HILL. We have not looked at the product development process with respect to the amount of time that it should take or the amount of time that is reasonable within each segment of the development process.

From the standpoint of the process, it does appear that this, however, does represent fairly what the process is; but we have not looked at the individual time.

Senator CRANSTON. Let me go on, then, to something else.

John, your testimony describes four rather alarming cases of mismanagement or improper procedures by grantees. One resulted in an estimated $17.9 million in overcharges which neither the grantee nor UMTA has yet resolved. Another involves $6.3 million in improper claims by the grantee. Still another involves $4 million in unnecessary purchases. And finally, you alluded to a possible nationwide problem on the part of grantees to close out their grants in a timely fashion.

Mr. Diaz has suggested what grantees he thinks you may be alluding to. Are you able now to tell us where each of these cases arose and whether there are any other similar problems you have discovered so far in your investigation?

Mr. HILL. Sure. I can give you the specific transit authorities.

The reason that we did not put that in the testimony was because the testimony was locally oriented and they may not affect this particular region so we didn't think it was necessary to name the people.

Senator CRANSTON. Yes.

Mr. HILL. We also included these items just because they were examples of the types of problems that we found in our survey work, which was to look at some of the OIG reports, the 25 OIG reports.

But the first one, the $17.9 million was the Chicago Transit Authority the $6.3 million is Santa Clara County Authority. The $4 million is the Pittsburgh Transit Authority; and that specifically relates to the trolley rehabilitation.

That is a particularly interesting situation where, initially, the contract was to rehabilitate about 90 trolleys and, in that situation, they only ended up rehabilitating much, much less than that, I think about maybe 10 percent of the amount that they had planned to.

However, they had purchased equipment up to the 90-trolley limit so they ended up having a lot of excess equipment that they never used.

The nationwide problems were really found from the San Francisco regional office, the Philadelphia office, the Atlanta office; and the comments that we received from UMTA officials indicated that the problem would be nationwide.

Mr. DIAZ. Senator, may I speak very briefly, to supplement—I realize I have already covered much of this ground in the opening statement which you very graciously allowed me to extend; however with regard to the one project that is local to this region and therefore the one to which I happen to have background material here with me.

I refer the Senator's attention to the Office of the Inspector General's final report on audit of the UMTA Guadalupe corridor project, being report No. R9–UN0–005, issued on October 13, 1989, which is one of the four so-called very serious weaknesses that the General Accounting Office has referred to this morning, and the only one pertinent to this region.

The conclusion of the inspector general's audit reads as follows:

> Because no significant internal control weaknesses were disclosed by the audit, a copy of this report is not being furnished to the Office of Management and Budget Circular A123 coordinators within UMTA and the Department. We appreciated the cooperation and assistance provided by all UMTA and local government officials contacted during the audit.

And so I, again, respectfully thank the Senator for the opportunity to expand my response to this in writing because what we have been called to task for here this morning are allegations of serious deficiencies and internal control weaknesses that have previously been found, on audit of the inspector general, not to be internal control weaknesses at all.

Senator CRANSTON. Thank you.

Mr. Hill.

Mr. HILL. Mr. Chairman, one thing that we should point out with respect to the OIG reports.

The OIG reports are generally related to one particular transit authority and they do not necessarily talk about broad problems that may be seen nationwide; in fact, they very seldom do.

Also, GAO does not always agree with the Office of the Inspector General as to what is significant and what is material and what is not.

This particular case was put here as an example, merely, of the types of problems, the types of the 25 different problems that we found.

The first case, the Chicago Transit Authority, although Mr. Diaz did indicate that that is now being resolved, that was initially identified by the inspector general in 1974. So I think we do have to look at the amount of time that it has taken to resolve this particular problem and also the fact that the problem continued over those years as charges were continuing on that particular project.

Senator CRANSTON. Yes, Mr. Montini, did you want to comment?

Mr. MONTINI. Yes, Mr. Chair, if I could, since the particular project that has been referred to is the Guadalupe corridor project.

First, I want to make sure that the Senator realizes that there is no hint of fraud or any wrongdoing here. A lot of the ineligible expenses are a matter of interpretation and we argued strongly, we thought, on many of the items and some we won and some we lost.

The biggest part of the ineligible expenses had to do with right-of-way and, in particular, one particular parcel had to do with a change in the original design where we had anticipated initially an at-grade crossing of the Southern Pacific Railroad in downtown San Jose.

As we went through the local approval process and went to the California Public Utilities Commission, we found that they would not allow an at-grade crossing and we had to then build an undercrossing. And there was a large parcel of land there that we thought should have been an eligible parcel and UMTA felt otherwise; and they won.

But many of the disputed expenditures really come down to a matter of interpretation; and I guess that is why we have audits. So I just want to make sure, for the record, that what happened here is understood by all parties here.

Senator CRANSTON. Thank you very much.

Yes?

Mr. HILL. Mr. Chairman, I would like to also state that, if you will notice in the testimony, we are certainly not using the words fraud or abuse; we do not feel that any of the examples that we have are indicative of fraud or abuse, nor do we feel that we have found any evidence to this point that that does exist.

Senator CRANSTON. It seems pretty clear, from the testimony yesterday and today, that we do not have to be concerned about the type of scandals occurring here that occurred in the HUD program.

Re grantees not always following proper procedures in the use of Federal funds, it is important to ensure that the problem is not a lack of guidance by UMTA to help grantees understand how Federal funds can be used and how they should not be used.

Mr. Diaz noted that technical assistance and training is provided to grantees, so let me put this question:

How adequate is that assistance;

To what extent do grantees have the expertise to apply Federal procurement and financial management requirements for using Federal fund grants;

How should UMTA provide the necessary assistance to recipients so that these requirements are understood and not violated inadvertently; and

What legislative changes, if any, are necessary to help UMTA respond more effectively to grantees' problems?

Who would like to comment on that general point?

Yes?

Mr. DIAZ. I would, I suppose, Senator, much to your surprise.

Administrator Clymer has identified this area as a matter of the highest priority and has undertaken, in this regard, a number of measures, including the reinstitution of training which had been done by UMTA some years back and had, in the interim period, been dropped, and I am proud to say that one of our regional counsel very ably provides guidance and assistance in that program.

And that is key because, as you say, people must understand the guidelines if they are expected to carry them out and we must all share a common understanding of the requirements.

We also publish, in region IX, bulletins from the regional office which, from time to time, underscore matters of current concern or matters which may be changing. And we are, through our project management oversight program and through the triennial review program, getting rather more diligent than we had already been in this area.

We think the grantees, of course, should comment for themselves as to what they feel about UMTA's efforts in this regard; but I think you will find that most of the grantees very diligently make their own in-house efforts to become educated as to the requirements, to communicate with UMTA, and to keep current on changing requirements, and to follow up because, after all, much of the money, and in this era of overmatch, frequently half of the money is local money; it is their money, too. And we find that they are equally committed to public service and to clean and effective government.

Senator CRANSTON. Ed, do you have any response on that general point?

Mr. HARRINGTON. Generally, the idea of more training, especially in procurement, would be welcome because that is the area that always needs to have some updating.

By and large, though, we know the rules. And the region IX bulletins, I think, tells us what those rules are. The problem is——

Senator CRANSTON. Do you think that is true of most communities?

Mr. HARRINGTON. I think any large grantee probably has the staff and the ability to know what the rules are.

The problem is, any large grantee also is doing so much business that they are going to miss some things. There will be Davis-Bacon wording left out of one contract out of 50, maybe, you know. And those things are going to happen.

And so I do not think that we will ever get to a perfect point of following every single rule, even if we know what all those rules are. But, again, by and large, we know what the rules are.

And I guess the other part that should be said, without beating a dead horse here, but in line with Santa Clara's comments, most of the times that we have had problems, especially with OIG audits, we believe we followed the rules. It is a matter of interpretation or it is a matter of we are firmly convinced OIG is simply wrong but you win because you have the money.

But, I mean, we believe the rules were there, we followed the rules appropriately, we checked with UMTA, we all agreed those were the rules; and OIG came in 5 years later and said, no, we do not think that is the case.

And so, simply because you have an audit finding, or simply because somebody has said you lost this battle, does not in any way mean that we did not know the rules or follow them, from our point of view.

Senator Cranston Do you have——

Mr. Montini. I would agree with those thoughts.

Senator Cranston. GAO's testimony briefly describes the quarterly financial and progress reports that UMTA requires of grantees. The testimony states that "Some grant either did not contain enough information to be used as a monitoring tool or UMTA did not use them for this purpose". One UMTA regional administrator suggested "These reports did not contain the information needed to detect grantee problems".

Mr. Diaz testified just yesterday, though, that UMTA receives information in sufficient detail for UMTA to manage its overall program.

Do any of you have any views as to what information is needed and how that may differ for what is now required?

Mr. Hill. Mr. Chairman, if I can speak to that.

We are currently looking at the types of information that would be appropriate to detect some of the problems that are being found, from a financial reporting standpoint.

I think Mr. Diaz' comments about the fact that they are not auditors is certainly well-taken; however, there are a lot of procedures that UMTA can perform that might be considered in the auditing realm.

The comments that we reported in our testimony are comments that came from UMTA itself, that have indicated that there were problems in those reports and that the reports were not adequate for their needs. And we can report those to you in much more detail if you would like in a written response.

Senator Cranston. If you would, I would appreciate it.

Mr. Harrington. The only other comment might be that, having staff on hand and on site to look at projects is no substitute for quarterly reports.

And so, while we have gone through an extensive process with UMTA, regionally, to improve the value of those quarterly reports, being able to take people physically out there and say this is what we are doing makes all the difference in the world.

Mr. Diaz. That, Senator, supports the PMO program which, again, you have just given us authority for and which we have just put into place. We agree with these comments and we think you have given us the tool to do it.

Senator **Cranston**. We would be interested in your views on the adequacy of three oversight procedures that Mr. Diaz has described.

First, UMTA has a third-party contract review board to review selected sole-source contracts and single-bid awards which are particularly susceptible to abuse.

Second, in describing the self-certification process, UMTA states that grantees are required to provide a summary of their procurement process in order to show that it meets the minimum requirements established by UMTA. That summary is then used in the triennial review and other monitoring processes.

And third, Mr. Diaz testified yesterday in LA that section 3 of the Transit Act requires that the Secretary of the Department of Transportation determine that an applicant has the technical capacity to carry out a proposed project before being given a loan or a grant.

Mr. Diaz then stated that section 9 largely leaves it to the recipients to self-certify that they have this technical capacity. UMTA supplements the self-certification with such things as information leading to grantee requests for guidance to establish reports.

I would like to first ask Mr. Diaz, do these general descriptions fairly represent the policies?

Mr. **Diaz**. Yes, sir.

As you know, the self-certification process is one that originates in the statute, so we follow that; the 3-year spacing is also statutory. And, in terms of adequacy, this is where the A128 audits, which are annual third-party audits that are done on each grantee, and the requested OIG audits also supplement our efforts.

And, as I testified yesterday, also, again, this is where our PMO program gives us the ability, as Mr. Harrington testified, to be there on the site, to have someone there on a continuous basis, monitoring and reporting back.

Senator **Cranston**. Mr. Hill, could you give us GAO's views on each of these. Maybe you would prefer to do it in writing rather than verbally now, whichever way you want.

Mr. **Hill**. I can do it whichever way you want.

Senator **Cranston**. If you do it briefly and succinctly now.

Mr. **Hill**. OK, if I get too long, just cut me off.

In the case of the first one where we are talking about third-party contract reviews, the information that we have is based on a review and report that we issued in 1989; and I can provide that to you directly.

Senator **Cranston**. All right.

Mr. **Hill**. But, in summary, the problems there that we found were that, with regard to procurement reviews, we looked at actually 73 procurements and, in UMTA, we only found support for those reviews on 40 of them. And we did find some support for those other 40 reviews actually at the grantee but there was no indication of the depth of the analysis that was done in coming up with the decisions that were made with respect to the third-party contractor.

With respect to the process of self-certification, we have not come out against self-certification; in fact, we do feel that self-certification is a means to alleviate some of the burden that UMTA would have to have in determining for itself what types of procedures that the grantee is following.

The problem that we do have with self-certification is that it also adds a certain element of risk and that risk is really reduced by the triennial reviews; so the two really have to be considered in tandem in other procedures.

With respect to the triennial reviews, though, our concern is the depth of those reviews, also the frequency and the backlog that currently exists in performing those. And all of those really point to staffing considerations.

Senator CRANSTON. Ed, do you have any comment on the virtues or advantages or disadvantages of self-certification?

Mr. HARRINGTON. Well, once again, we actually think that it works to our benefit. Several times a year, when I am asking for grants, I have got to sign this piece of paper that says that I guarantee that we do all these things; and, before I sign it, I make sure that my staff actually goes out and tells me that, yes, in fact, we are in compliance with all of those. If I was doing just a triennial or something else, the level of scrutiny would actually be much less.

Again, given the staffing, I would much rather have UMTA staff working on substantive issues than trying to look at all the individual intricacies of how we do our business.

Senator CRANSTON. It appears that the major oversight tools used by UMTA is the triennial review.

You made, Mr. Diaz, a couple of comments I am curious about. You stated first that the review is not an audit but rather a practical and reasonable approach to maintain a credible stewardship of the program. As you know, GAO recently recommended you expand those reviews.

Today you stated, however, that UMTA would not want to change the intent of the review or go beyond UMTA's resources, capabilities, or legislative authority. I have a twofold question:

One, why isn't this review, performed every 3 years, given the status and attention of a typical audit; and two, to what extent is UMTA limiting the scope and the scrutiny of the triennial review because of lack of resources, capacity, or legislative authority?

What are UMTA's views with regard to using this review as a formal audit if provided the necessary resources and authority?

Mr. DIAZ. Thank you, Senator.

As I have commented, we perform these reviews every 3 years because that is what the statute mandates the Secretary to do. It says something to the effect that, "not less than every 3 years", I think that is the exact language of the statute.

Do we believe it is adequate? As Mr. Harrington earlier indicated, because of the attention that we give to projects as they come on line and as they progress, particularly now since we have this new PMO program which Congress has authorized, we believe that we have, by the time we get to the triennial process, very substantial information about where we are with a grantee or a particular project and that the triennial review simply seeks to close the loop and to round out to make sure that we have not let anything go loose.

So we believe that it is a sort of supplementary process. And, frankly, the PMO program may develop to be a more important one in terms of being a more immediate interaction with the expenditure of the funds and, therefore, a more useful, more articulate tool in terms of dealing with any problems that may arise, than the triennial review.

The triennial review is not a full audit. For the reasons that I submitted, we do not think it needs to be a full audit, because we get the A128 audits annually on each grantee. Because we can and do go to the Office of the Inspector General annually for special audits, we believe that the auditing capacity is present and is utilized.

And, again, as I pointed out, the inspector general here in the San Jose case did do the audit requested, did come to a conclusion that we felt was highly justified, and the matter did come to a prompt and satisfactory resolution. You have heard from the grantee on that, as well.

Because the kinds of problems that both Santa Clara and San Francisco have indicated here this morning concerning the fact that even through they know the rule, they believe they are complying with the rule, reasonable people will disagree about the application of a rule, it remains a problem of a 3-year audit coming up and second-guessing grantee activities so late, may not in time be the best tool or the best way to develop your relationship with your grantees.

So, again, I think that the triennial review it should not supplant the PMO program or the A128 audits or the inspector general audits. They is why UMTA does not believe the triennial review should be expanded nor do we believe that it would serve any useful purpose to expand it.

Senator CRANSTON. Any other comments on that particular point?

If not, Mr. Hill testified that UMTA failed to properly oversee some projects that received Federal assistance. That explanation was a lack, in this case, of adequate staffing. GAO's testimony refers to the inspector general's report to the President in 1989 that stated, "In order to improve project oversight, additional staffing is needed." UMTA's testimony today suggests that the staffing at the regional level was inadequate to meet the triennial review schedule demands in some regions.

I particularly appreciated Mr. Harrington's comments with regard to UMTA's staffing problems. GAO has testified that UMTA requested an additional 10-staff-person for grantee oversight in its 1991 budget.

I would like to ask how adequate you think that increase would be and I would like to hear the reaction from other witnesses as well.

What are your views on the problem of staffing;

Do you run into problems that seem to be related to staffing or understaffing;

Does oversight suffer due to a loss of staffing or were there other problems behind it; and

How would you like to see us address such problems when we reauthorize UMTA?

Mr. **Diaz**. Senator, did you want me to start that?

Senator **Cranston**. Yes.

Mr. **Diaz**. The answer is that it is fact to acknowledge that staffing in the regional offices has been a problem for UMTA and its grantees over recent years.

It is a fact that, with the new PMO program, our capabilities and our abilities to interact with and respond to our grantees is vastly improved. It is also a fact that that the PMO program is brand new and we have not had an opportunity fully to benefit from it yet and so some grantees may not even be aware of the benefits that will be derived from that program.

We do believe some additional in-house staff are required and, as we discussed yesterday, that has been requested in the budget and I understand that it is wending its way through the committees and may actually have been approved by the House. And I think a different number was approved by the Senate—if I have been informed correctly—I think within the last week, as a matter of fact.

However, we do believe that we are moving in the right direction and do also believe that it is necessary not to overplay the problems of 5 or 10 years ago in light of the reforms that have been undertaken within the last year. We hope to engage some analysis and some support for what is currently being done and where will that leave us as opposed to trying to solve the pre-existing problem as it was before there were any solutions on the scene.

Senator **Cranston**. Any other comments on that point of staffing?

Mr. **Hill**. I have one comment on that, one thing that should be noted.

From our information, the entire 10 staff years is not to go to UMTA regional offices. Our information indicates that 3 staff years will go to UMTA regional offices, 7 staff years will go to headquarters.

So it is very unlikely that the three additional staff years in UMTA regional offices will help to alleviate the problems that are occurring.

Senator **Cranston**. Yes?

Mr. **Montini**. Mr. Chair, one observation from a grantee's point of view.

The more authority that can be delegated to the regional offices, the better it is for us. I think the quicker things get done, the quicker things get reviewed.

An example is the environmental impact reports which now have to go back to Washington for approval. It is hard to understand why that approval cannot be given at the regional level. It is done for other types of projects; it is hard to understand why it has to go back to Washington for that approval.

Senator **Cranston**. Can Mr. Hill or Mr. Diaz answer that?

Mr. **Diaz**. John, do you want to talk?

Mr. **Hill**. No; that one, I can't touch.

Mr. **Diaz**. Certain matters such as NEPA matters, the National Environmental Policy Act, require an evenhanded, national enforcement. And frankly, Senator, you can just imagine, if you have 10 regional offices each enforcing the policy on a case by case basis, that you might not end up with the conformity or fairness that you would wish for the grantees.

And I have to say that the environmental process is a time-consuming one; we have heard a number of complaints about it today and yesterday. But the fact is, it would not be shortened appreciably by having those final sign-offs in the regions. In my opinion, it would not shorten it by longer than the time it takes to fax the papers back and forth to Washington, which would be a matter of minutes.

Mr. MONTINI. Mr. Chair, just a brief rebuttal.

We are able, for many highway projects now, to get the environmental review done at the regional level; and I can tell you, from our standpoint, it is quicker and it is much more satisfying.

The regional personnel understand what is going on in the community; they have a better feel for what some of our problems are. They understand the importance of the problems we are facing in air pollution and congestion management.

California has an Environmental Quality Act, as well, that we need to satisfy. It just seems, from our standpoint that, if you could delegate that responsibility locally or regionally, it works a lot better and it is a lot quicker.

Senator CRANSTON. I should think, within certain parameters, we might be able to explore how that might be done.

Would you give further thought to that, Mr. Diaz, and, within certain guidelines, how it might be possible to get some decision-making.

Mr. DIAZ. I will carry that recommendation back to the administrator.

Senator CRANSTON. Good.

Mr. HARRINGTON. Senator, just one other comment.

On the reauthorization, obviously the adequacy of staffing depends on how you are going to spend your money. And, when you are looking at the reauthorization, if you are going to be doing a stable, formula-driven base, you probably have to have different kinds of staff, possibly, or, from what we have seen, the section 9 formula-driven staff work seems to be easier and different from the discretionary staff work.

And to the extent you have a large discretionary pot of money, you will have to have different levels of staff and different staff work.

Senator CRANSTON. Yes.

On the staffing business, we have heard today about the need for additional staffing at the regional level.

And, Mr. Diaz, I would like to ask you to respond in writing, not now verbally, but I would like UMTA to submit a written explanation why headquarters is getting the majority of the new staff and not the regional office.

I want to now wrap up with the same question that I asked the other panelists. I exclude Mr. Diaz and Mr. Hill because I asked you this question yesterday—unless you have a new answer to that.

Where would each of you, if you want to make sure we do one thing, either add something, subtract something, or change something in mass transit when we reauthorize next year?

And let me start with you, Ed.

Mr. **Harrington**. Our most important thing is that you provide a stable, predictable funding source. Almost whatever level it is, if we knew what to expect far in the future, we could plan much better.

Senator **Cranston**. Fine.

Bill.

Mr. **Hein**. I just have to echo that, the same words I underlined here, stable, predictable, and flexible; and we can make the decisions.

Senator **Cranston**. Fine.

Lou.

Mr. **Montini**. I think Congress ought to free up the transportation trust fund revenues that are being held.

Senator **Cranston**. I want to thank each of you and everyone else who has participated one way or another by your presence, or otherwise, today for helping us get started on a long, long trail we are going to be following to try to improve the rapid transit program of our country.

Thank you very, very much.

[Whereupon, at 12:56 p.m., the subcommittee field hearing was closed.]

[Prepared statements of witnesses follow:]

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Testimony of Supervisor Rod Diridon, Chairman

on behalf of the

Metropolitan Transportation Commission
Oakland, CA

August 8, 1990
San Jose, California

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Introduction

Senator Cranston, on behalf of the Metropolitan Transportation Commission, I would like to welcome you home to California.

I am Rod Diridon, Chairman of the MTC and the Santa Clara County Transit District Board of Supervisors. I am happy to appear before you today to present a regional perspective on the reauthorization of the nation's surface transportation program and to address some of the key transportation issues facing us here in the Bay Area now and in the future.

Transportation is an overwhelming concern to citizens here in the Bay Area. If we look at the facts, it should not surprise us that California voters approved an increase in the state gas tax this past June. Between 1980 and 1988, traffic on all roads in the state increased 55 percent and, in 1988, California motorists wasted nearly 1.19 billion hours sitting in traffic gridlock. If current congestion trends continue, potentially doubling by the year 2000, the average California driver will waste nearly $3500 annually in fuel costs and sit in traffic the equivalent of 7 continuous days a year. The state's urban and suburban drivers know these problems only too well, experiencing them on a daily basis.

In approving a new gas tax, Californians revealed their frustration with this transportation status quo and a willingness to support the changes necessary to bring about improvements. I should mention that, in addition to the recent statewide action, each of the urban counties in the Bay Area have adopted two separate 1/2 cent sales tax increases to fund transportation improvements. Clearly, it is only a matter of time before other regions of this country confront the same transportation challenges we now face.

With the expiration of the 1987 Surface Transportation and Uniform Relocation Assistance Act and the completion of the Federal Interstate highway system in 1991, a major opportunity is at hand to shape a new surface transportation policy which is responsive to the present and future needs of California and the nation. In considering how a new federal surface transportation policy will look in the post-Interstate period, we endorse broad goals relative to international competition, a vital domestic economy, a healthy environment, safe systems, and flexible and stable funding. The focus of transportation investments should be on preservation of the Interstate system and development of systems that recognize that urban/suburban mobility and rural access are key elements of an effective national transportation network.

MTC's Post-Interstate Principles

The Metropolitan Transportation Commission has been an active participant at the regional, state, and national level in efforts to develop a vision for the post-Interstate period. We participated, for example, as part of the twelve public and private interest groups in Washington, D.C. known as the Transportation Alternatives Group (TAG) that developed consensus statements designed to advance the next reauthorization. We have developed also our own principles to guide post-Interstate policy (see attached). Specifically, MTC supports:

- An increase in the federal gas tax dedicated to sustaining and improving the nation's transportation system.

- The flexible use of federal transportation funds and a predictable, formula-based funding distribution which ensures, to the extent feasible, that funds are distributed equitably to both metropolitan and rural systems.

- The establishment of an emphasis on a system, not just individual projects, to address congestion and access problems, with uniform federal matching requirements for investments in both new or expanded highway and transit facilities.

In MTC's view, a "systems" approach is the best hope for addressing the congestion and access problems we face now and in the future. Comprised of major highway and transit routes, these systems would be defined through the existing federal, state, and local partnership and serve as the basis for investment decisions. The systems approach would recognize the complementary and interdependent function of Interstate freeways, state highways, local arterials and major transit lines. The systems approach would transcend the ownership approach to planning which currently exists. The public does not know whether they are on a state highway, a county road, or a city street. They only want the system to work. We need to identify the most cost-effective investment anywhere on the system, irrespective of ownership.

The existing state-local decision process described in federal law provides the basis for determining how planning and funding decisions would actually be made under a metropolitan/rural access system approach. Where a well established Metropolitan Planning Organization (MPO) exists, it could assume a leadership role in the state-local partnership. In other cases, the state could play the leadership role so long as it focused on the metropolitan or rural access system. The federal government has demonstrated its ability to get all states to focus on delivery of a single system-the Interstate. We believe that a similar focus on metropolitan and rural access system development can be now achieved.

In order to achieve our transportation goals in the post-Interstate era, a strong federal, state and local funding partnership must continue to be strengthened by increased funding at all levels. I mentioned earlier the increased funding resulting from voter approval at both the local and state level. The federal leg of the traditional three-legged partnership stool must remain strong, ensuring sufficient and predictable levels of transportation funding. Just as California has raised the gas tax as a user fee for transportation, so should the federal government increase the federal gasoline tax to meet our nation's future transportation needs.

In addition to establishing dependable transportation funding, we need federal policies that allow the state and local partnerships to decide where to invest their limited federal, state, and local transportation dollars. This means both predictable and flexible funds. With predictable and flexible funds the state-local partnerships can make the decisions that best link transportation and land use, achieve improved air quality, integrate transit and highways and develop support for increased local funding.

Conclusion

Achieving a redirection of the federal highway and transit program to serve the interests of all parties can be accomplished by using metropolitan and rural program requirements to stimulate new thinking by existing institutions. The federal government has worked to develop the necessary state and local institutions and decision-making processes that are flexible enough to make investment decisions required by a revised federal program structure.

We believe California will be a prime proving ground for the new federal transportation policies in the post-Interstate period. We look forward to working with you at what is sure to be a historic point in the development of the transportation system of this country.

Thank you. I will be glad to answer any questions you may have.

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PRINCIPLES FOR POST-INTERSTATE ADVOCACY

Preamble

With the Interstate Highway System scheduled for completion in 1991, an opportunity is at hand to redefine state and federal highway and transit programs. The resources currently devoted to the construction of the Interstate system and any increased revenues should be used for attacking urban/suburban congestion, revitalizing rural economies, and maintaining the existing surface transportation system. To accomplish this redefinition, the Metropolitan Transportation Commission supports the following principles.

Increase the Gas Tax for Transportation

State and federal gas tax increases are needed to sustain and improve the nation's surface transportation systems. Transportation needs must be considered first whenever gasoline taxes are proposed.

Formula Funding Distribution

State and federal funding should be predictable and, to the extent feasible, distributed to fund metropolitan and rural transportation systems using equitable formulas. Meaningful budget choices and a firm planning base are fostered by carefully defined formula programs.

Systems Emphasis

A network of metropolitan transportation systems in urban/suburban areas and a network of rural systems consisting of major highways and transit routes should be defined through existing federal, state and local partnerships. The complementary and interdependent functions of the interstate freeways, state highways, local arterials and major transit lines, irrespective of ownership, should be recognized.

Flexible Use of Funds

Sufficient funds should be set aside and highest priority given to maintaining the Interstate system, paralleled by funds set aside to maintain and operate the nation's public transit systems. State and federal governments should then encourage cost-effective investments by blending major transit and highway capital funding available for system expansion by creating one account for the urban/suburban systems and another account for rural systems. System options should include freeways, expressways, transit guideways, arterials and operational improvements. Federal matching requirements should be uniform for investments in new or expanded highway and transit facilities.

Maintain Local Roads

Sufficient funds should be dedicated to adequately maintain city streets and county roads.

Approved by the Commission March 22, 1989

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TESTIMONY

OF

COUNCILMEMBER JIM BEALL

CITY OF SAN JOSE

SENATE SUBCOMMITTEE ON HOUSING AND URBAN AFFAIRS

SENATOR ALAN CRANSTON, CHAIR

FIELD HEARING
SAN JOSE, CALIFORNIA

AUGUST 8, 1990

GOOD MORNING MR. CHAIRMAN. WELCOME TO SAN JOSE. I WANT TO THANK YOU FOR HOLDING THIS HEARING TO SOLICIT INPUT FROM LOCAL TRANSPORTATION EXPERTS. I AM HAPPY TO SHARE MY THOUGHTS WITH YOU ON THE FUTURE OF TRANSPORTATION PLANNING IN SANTA CLARA COUNTY. I AM JIM BEALL. IN ADDITION TO BEING A MEMBER OF THE SAN JOSE CITY COUNCIL, I SERVE AS CHAIRMAN OF THE COUNTY TRAFFIC AUTHORITY, CHAIR OF THE LEAGUE OF CALIFORNIA CITIES TRANSPORTATION AND PUBLIC WORKS COMMITTEE, AND VICE CHAIR OF THE NATIONAL LEAGUE OF CITIES TRANSPORTATION AND COMMUNICATIONS COMMITTEE. GIVEN THE LIMITED AMOUNT OF TIME FOR TESTIMONY, I WILL SHARE WITH YOU SOME OF OUR PAST EXPERIENCES AND SUGGESTIONS FOR IMPROVING FEDERAL SUPPORT FOR LOCAL TRANSPORTATION PROGRAMS.

IN 1984, COUNTY VOTERS APPROVED MEASURE A -- A ONE-HALF CENT SALES TAX INCREASE -- TO FUND CONSTRUCTION AND IMPROVEMENTS TO THREE KEY CORRIDORS. IT WAS THE FIRST MEASURE OF ITS KIND IN CALIFORNIA; SINCE THEN, 14 OTHER COUNTIES HAVE PASSED SIMILAR MEASURES. LOCALLY THIS PROGRAM WILL RAISE ONE BILLION DOLLARS FOR TRANSPORTATION IMPROVEMENTS TO STATE HIGHWAYS 85 AND 237, AND U.S. HIGHWAY 101. THE TRAFFIC AUTHORITY ADMINISTERS THESE FUNDS. A KEY ELEMENT OF THESE PROJECTS IS THE WIDENING OF SEGMENTS OF THESE FREEWAYS AND THE INSTITUTION OF COMMUTER (HOV) LANES.

ANOTHER IMPORTANT COMPONENT OF TRANSPORTATION FINANCE IS THE LOCAL DISCRETIONARY FUNDS CONTRIBUTED BY LOCAL GOVERNMENTS. HERE IN SAN JOSE, THIS TRANSLATES INTO 40 TO 50 PERCENT OF PROJECT FUNDING. THE CITY OF SAN JOSE HAS COMMITTED $29 MILLION TO CONVERT A 3.1

MILE EXPRESSWAY INTO A 6-LANE STATE HIGHWAY TO IMPROVE CONNECTIONS BETWEEN THE AIRPORT, THE DOWNTOWN AND RESIDENTIAL AREAS. THIS IS A KEY COMPONENT OF THE COUNTY'S OVERALL TRANSPORTATION NETWORK. IN ADDITION TO THE RECENT PASSAGE OF PROPOSITION 111 AND THE PROJECTS IT WILL FUND, THESE TWO LOCAL EFFORTS DEMONSTRATE A REAL COMMITMENT ON THE PART OF CITIES, AND THEIR RESIDENTS, TO FUND TRANSPORTATION IMPROVEMENTS.

A CORNERSTONE OF THE STATE TRANSPORTATION PACKAGE PASSED BY VOTERS ON JUNE 5 WAS A REQUIREMENT THAT THE LOCAL GOVERNMENTS IN EACH URBAN COUNTY ADOPT A CONGESTION MANAGEMENT PLAN DESIGNED TO LINK URBAN DEVELOPMENT DECISIONS TO THE TRANSPORTATION SYSTEM. THOSE PLANS WHICH ARE CONSISTENT WITH REGIONAL AND STATEWIDE TRANSPORTATION PLANS WILL HAVE A COMPETITIVE ADVANTAGE FOR THE FUNDS MADE AVAILABLE BY THE MEASURES' PASSAGE. LOCAL AGENCIES WILL BE ABLE TO WITHHOLD LOCAL GAS TAX SUBVENTIONS TO NEIGHBORING JURISDICTIONS IF THEY DO NOT COMPLY WITH THE CONGESTION MANAGEMENT PLAN. THIS IS A NEW WAY OF DOING BUSINESS IN CALIFORNIA AND WAS NECESSITATED BY THE TREMENDOUS GAP BETWEEN THE STATE'S TRANSPORTATION NEEDS AND ITS RESOURCES.

IN ADDITION TO THE IMPROVED PLANNING REQUIREMENTS IN THE CONGESTION MANAGEMENT PLAN, LEADERS AT ALL LEVELS OF GOVERNMENT ARE SERIOUSLY DEBATING ALTERNATIVE GOVERNING STRUCTURES TO DEAL WITH THE UNPRECEDENTED GROWTH BEING EXPERIENCED IN CALIFORNIA. SEVERAL KEY LEGISLATIVE PROPOSALS ARE CURRENTLY UNDER CONSIDERATION IN SACRAMENTO.

DESPITE THE COMBINED EFFORTS OF LOCAL, COUNTY, REGIONAL AND STATE EFFORTS TO FUND TRANSPORTATION IMPROVEMENTS, THE AVAILABLE RESOURCES WILL NOT BE ENOUGH TO PROVIDE AN ACCEPTABLE LEVEL OF TRANSPORTATION SERVICES IN THE FORESEEABLE FUTURE. EFFORTS BY CONGRESS IN SHAPING TRANSPORTATION POLICY FOR THE NEXT DECADE SHOULD PERMIT MAXIMUM FLEXIBILITY FOR LOCAL GOVERNMENT TO SPEND FEDERAL FUNDS IN ACCORDANCE WITH STATE AND LOCAL TRANSPORTATION PRIORITIES. ADDITIONALLY, PRIORITY MUST BE GIVEN TO RESOLVING THE URBAN/SUBURBAN CONGESTION PROBLEM, STREAMLINING THE ENVIRONMENTAL AND ALTERNATIVES ANALYSIS PROCESSES THROUGH TIME LIMITS, ADOPTION OF FEDERAL COST-EFFECTIVENESS RATING INDICES TO PROTECT HIGH COST OF LIVING AREAS, AND PRIORITY TO PROJECTS, REGARDLESS OF MODE, WHICH OFFER THE BEST SOLUTION TO EACH REGION'S TRANSPORTATION NEEDS.

I ALSO URGE CONGRESS TO EXAMINE THE POSSIBILITY OF LEVERAGING A HIGHER RETURN ON THE FEDERAL INVESTMENT IN TRANSPORTATION IMPROVEMENTS THROUGH THE ESTABLISHMENT OF A LOCAL INCENTIVE PROGRAM SIMILAR TO THE STATE-LOCAL PARTNERSHIP PROGRAM; THIS WOULD BE A SIGNIFICANT ASSET IN HELPING DEFRAY PROJECT COSTS AND WOULD FOSTER THE NOTION OF INTERGOVERNMENTAL COOPERATION.

WE ALSO URGE THE FEDERAL GOVERNMENT TO COMMIT TO COMPLETING THE CURRENT INTERSTATE PROGRAM, ESTABLISH THE TRANSPORTATION TRUST FUND INDEPENDENTLY FROM THE FEDERAL BUDGET SO AS NOT TO INCLUDE IT

IN THE DEFICIT CALCULATION, AND PROHIBIT A FEDERAL GAS TAX INCREASE FOR DEFICIT REDUCTION PURPOSES.

I HOPE THESE REMARKS ARE HELPFUL IN YOUR DELIBERATIONS. I THANK YOU AGAIN FOR THIS OPPORTUNITY TO SHARE MY VIEWS, AND I STAND READY TO ASSIST YOU AS YOU DEVELOP THE SENATE'S TRANSPORTATION PRIORITIES TO LEAD US INTO THE NEXT CENTURY.

TESTIMONY OF ROBERT K. BEST
BEFORE SENATOR ALAN CRANSTON
CHAIRMAN OF THE
SUBCOMMITTEE ON HOUSING AND URBAN AFFAIRS

AUGUST 8, 1990

SAN JOSE, CALIFORNIA

Mr. Chairman, my name is Robert K. Best and I am the Director of the California Department of Transportation.

Thank you for the opportunity to present the Department's views on the important issue of congestion and how Congress can focus the post-interstate transportation program to most effectively address this growing national problem.

There is no question that California and many parts of the nation are paying a severe price for congestion. We know that lost and wasted hours caused by congestion cost Californians in excess of $1 billion annually and no one needs to tell our motorists that there are more than 1,000 miles of severely congested freeways, not to speak of countless city streets and local roadways, that suffer major delays during typical rush hour periods. Finally, in years to come, we in California see population and automobile growth, along with dramatic increases in vehicle use, exerting growing pressure on an already strained system.

We also know from our own research[1] that expenditures for transportation facilities have a dramatic effect on private sector output. In fact, highways have a proportionally greater impact on private productivity than all other components of infrastructure combined.

It is no mystery that our transportation systems have been chronically underfunded, that we have become overly dependent on the interstate system to carry our traffic, that land use and transportation have had only the most tenuous ties and that our radial designed transportation systems have been unable to cope with the massive growth in suburb-to-suburb travel. However, understanding the problem does not mean that our 35-year-old program provides the tools that will lead to a solution.

Typically, we in the transportation business have tended to respond to these problems based upon our long-standing set of modal biases. Those of us steeped in highway tradition look to roadways as the answer. Those of us raised in the mass transit and heavy rail environments see our modes as the only right answer to the problems. Indeed, we have raised to an art form the mistrust of people based solely on their modal associations.

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[1] "Highway Stock and Private Sector Productivity," Economic Analysis Branch, California Department of Transportation, October 1989.

This problem needs to be solved by all of us involved in transportation, and Congress can do much to create the proper environment as they deliberate the post-interstate transportation program.

Rather than spend my limited time on a recitation of the actions we are taking to address congestion, I would like to submit for the record a brief summary of approaches now underway in California (see attached). You will readily note that this list of items is largely highway focused. It is this "bias" that I would like to address in the remaining time.

Over the last two years, California has worked with a broad array of states, organizations and individuals, all of whom are major stakeholders in how Congress designs the transportation program that will carry us into the next century. In the development of our report to Congress[2], which we would like to submit for the record, we came to a number of widely shared conclusions. Among these are:

1) Preserve our existing national infrastructure investment.

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[2] "Addressing Modern Transportation Challenges: California's Recommendations for a Post-Interstate National Surface Transportation Program," June 1990.

2) Refocus national policies to respond to urban congestion, rural access, intermodal connectivity and air quality.

3) Give priority to projects, regardless of mode, that offer the best solution to each region's transportation problems.

4) Create new partnerships and respective responsibilities that will assist the nation to remain competitive in the global economy.

5) Provide accountability to Congress for achieving national objectives.

While these are all important, I believe the third and fourth are absolutely essential if we are to manage effectively our transportation systems. Without the abandonment of the current program structure that creates dysfunctional competition among the modes, creates inflexible constituencies around various modal funds and discourages intermodal and multimodal cooperation, we are destined to lose ground against congestion and our trading competitors.

With an appreciation for the committee structure of the Congress and the jurisdictional constraints under which you must operate, I would like to propose what we believe is the kind of transportation program that would have a reasonable chance of meeting our national needs.

Very briefly, this program, detailed in our report to Congress, would:

1) Create a focused national highway and transit program designed around a sorting out of direct federal interest from those of state and local governments.

2) Provide for a flexible state/local highway and transit program to respond to varying and often unique state and sub-state needs.

3) Allow for a much broader use of private capital in public infrastructure, including privatization of large bridges, roadside rests and highways.

4) Modify the "3C" to create an integrated intermodal planning process with generic funding.

5) Seek a major national commitment to funding transportation research and development.

6) Call for reconciliation of transportation and air quality policies.

7) Give higher priority to intermodal projects, particularly those associated with major air and water ports.

8) Ask Congress to reduce unnecessary administrative oversight with respect to federally funded projects.

9) Create a comprehensive transportation safety program that would have as its goals the reduction of fatalities and personal injury.

10) Call for stable federal funding, a series of funding guarantees and the full commitment of all trust funds to their intended purposes.

11) Seek a smooth transition from the interstate program to one that is both responsive to emerging problems and that follows through on commitments to complete interstate and transit projects now underway.

In summary, we can solve the congestion problem if given the proper tools. Congress has a rare opportunity to help states and local governments to solve many of their growing transportation problems. We seek your support in this effort. Thank you.

SUMMARY OF CONGESTION RELIEVING ACTIONS
INITIATED BY
THE CALIFORNIA DEPARTMENT OF TRANSPORTATION

High-Occupancy Vehicle Lanes

We have over 210 lane-miles in operation with another 170 lane-miles under construction and another 300 lane-miles planned. The special lanes move 1.4 to 2.7 times the number of people as a normal freeway lane.

Park and Ride Facilities

We provide almost 24,000 free parking spaces to encourage Californians to pool or ride transit. We are pursuing private joint development of some of these facilities to provide convenience and safety to their users.

Ramp Meters

Los Angeles alone has more ramp meters than the rest of the free world combined. Statewide, we have over 1,100. The meters regulate the demand and smooth the flow on urban freeways, making them more efficient and safer facilities.

Traffic Operations Centers

Efforts are underway to tie all traffic management activities together at a focal point where complete information and informed, appropriate, timely traffic management decisions can be made.

Incident Response

Recognizing that over half of all urban congestion is caused by disabled vehicles, accidents and foreign material on the roadway, a major effort is underway to reduce the amount of time incidents cause congestion.

Event Management

Events such as parades, fairs, athletic contests and VIP visits can have serious impacts on the transportation system. California makes a concerted effort to coordinate with the sponsors and local governments to minimize the traffic impacts of such events. The payoff in reduced congestion is substantial.

Motorist Information Systems

Telephone, radio and television are channels of communication to inform motorists about highway conditions. An informed motorist can become part of the solution instead of part of the congestion problem. We are on the verge of making several technological breakthroughs in providing motorists with better information.

Traffic Systems Management

We currently have a 10-year, $1 billion State program directed at improving the person throughput of the existing highway system without increasing the vehicle capacity. It is focused on protecting our $100 billion plus investment in urban transportation infrastructure.

Flexible Congestion Relief

California is experiencing unprecedented economic and population growth. A $3.5 billion flexible congestion relief program is directed at reducing the congestion problems that are surfacing as the result of growth. It is a truly flexible capital outlay program that allows the construction of highways or rail and mass transit facilities to expand the capacity of urban transportation systems.

Traffic Mitigation Plans

Motorists do not have to be reminded what a significant impact major construction projects can have on the highway system. Our objective with these plans is to reduce the delay caused by the project to an acceptable level. A variety of traffic/demand management strategies are employed to reduce the overall congestion caused by the construction project. On one project, the traffic moved faster and more safely during the construction project than it did before construction began.

Demand Management

Congestion is caused by an imbalance between demand and capacity. While much of our effort is directed toward improving capacity, we are also directing our attention to the traffic demand on our facilities. We have encouraged State employees to use public transportation or ridesharing to get to work. We support flexible work hours and telecommuting to reduce the peak demand on our facilities. We have also encouraged the formation of partnerships within Traffic Management Associations. These associations, formed by employers, use the creativity and resources of their members to develop creative solutions to local congestion problems. In addition, privatized toll roads can test congestion pricing in an effort to improve service levels and reduce air pollution.

Traffic Signal Operations

We sponsor a program to adjust local traffic signals to minimize traffic congestion. Over 8,000 intersections have been timed since the inception of the program seven years ago. Local engineers are trained in the latest techniques to make it an ongoing program. Aggregate savings to the motorist in reduced delays, fuel consumption and operating costs have amounted to over half a billion dollars while the cost to date of the program has been $12 million.

Highway Stock and Private Sector Productivity

by

Kazem Attaran
Philippe Auclair

Economic Analysis Branch
Office of Management Planning
Division of Transportation Planning
California Department of Transportation

October 1989

HIGHWAY STOCK AND PRIVATE SECTOR PRODUCTIVITY
AN EXECUTIVE SUMMARY

It is generally accepted that the availability of a good transportation system is essential to a growing, healthy economy. For this reason, in developing economies, transportation improvements are usually among the first projects undertaken to start the path towards economic development and prosperity. Transportation facilities connect markets and facilitate production and trade. Although the relationship between transport facilities and the well being of the economy of a country is intuitively obvious, very little research has been undertaken to quantitatively measure this relationship.

This paper is an attempt to show the existence of the link between transport facilities and the performance of the economy of the United States, and to measure the degree of this relationship. The paper demonstrates that variations in the existing stock of public highways can, to a large extent, explain variations in the productivity of labor and capital in the private sector of the economy. To investigate this dependence, two sets of econometric models were constructed. The first model measures the association between the "stock of highways" and "capital productivity" in the private sector. The second model measures the association between the highway stock and "total input productivity" (i.e., the productivity of combined labor and capital) in the private sector. The study's working hypothesis was that the stock of public highways greatly influences the productivity growth in the private sector, which in turn influences the growth of the national economy and the competitiveness of United States' commodities in international markets.

The data on "highway stock" used in this analysis were compiled and reported by the Bureau of Labor Statistics. The series covered the period from 1950 to 1985. "Highway stock" was defined as the present dollar value of the existing stock of public highways, net of depreciation, and measured in constant 1982 dollars. "Productivity" was defined as the constant dollar value of goods and services produced per unit of input (i.e., labor and capital).

To analyze the data, the method of "multiple regression analysis" was used. In general, the models regressed the total private sector output on variations of data on private capital, public infrastructure (highway and nonhighway), labor, time (a proxy for technology and other omitted factors), and capacity utilization. The final forms of all the models that were selected for this paper have been validated by the usual statistical tests. The models each have explanatory power of 98 percent or more. That is, given the usual caveat associated with time series data, the combined effect of the variables in each model can explain 98 percent of the variations in private sector productivity.

The results support the proposed hypothesis, that productivity in the private sector of the economy is associated with the highway stock. In other words, the full economic benefits of investments in capital and labor in the private sector can only be achieved when an adequate supply of public infrastructure, in general, and highways in particular, are available to complement such private investment. Conversely, a decline in the availability of highway stock leads to a decline in the productivity of both labor and capital in the private sector of the economy. These findings are supported by the significant statistical results of the two models (over 98% explanatory power). Some specific findings of the two sets of models were:

- On the average, every 10 percent increase in the stock of highway infrastructure, adjusted for inflation, corresponds to between 2.26 and 2.42 percent increase in annual real output in the private sector.

- The results of this study demonstrate that the stock of our nation's highways has had a proportionally greater effect on private sector productivity than all other components of public infrastructure combined. As we have observed from the data in the sample period, highways, which comprise only about one third of the value of the total public infrastructure in the United States, are responsible for well over half (between 57 and 60 percent) of the gain in private sector output attributable to public sector infrastructure.

- Considering the strong association between the level of highway stock and productivity in the private sector, one might argue, a priori, that inadequacies in highway facilities could lead to the loss of economic production and productivity.

HIGHWAY STOCK AND PRIVATE SECTOR PRODUCTIVITY

This paper is an attempt to demonstrate that variations in the existing stock of public highways can, to a large extent, explain variations in the productivity of labor and capital in the private sector of the economy. For this purpose, two sets of econometric models were constructed to separately measure the association between the stock of highways and the productivities of: private sector capital; and then combined labor and capital. The models not only support the contention that highway stock has contributed to improved private sector productivity, but also that it has had a more than proportional impact compared with the nonhighway infrastructure.

In the process of a nation's economic development from a state of underdevelopment, the essential role that the availability of transportation facilities plays in that process is well understood. Usually one of the first steps taken in tne path of development is to link markets together by creating transport facilities. Unfortunately, once markets are linked, transport facilities very often are taken for granted and assumed to be ever available, until severe inadequacies begin to emerge. As competing social needs bid for limited resources, nations tend to forget that, while factor supplies initially determined the level of economic output, their growth, or growth in their productivity, would determine future economic growth. Such complacency has been the case in the U.S., and in California.

The problem stems from the "long-term" nature of providing transport infrastructure. Facilities are usually planned and constructed with a 20- to 30-year time horizon. This planned excess capacity often creates the illusion of indefinite adequacy. When this capacity is exceeded by demand, the realization of the finite nature of capacity occurs, sometimes at the considerable cost of stalled economic growth.

Although the contribution of transportation facilities, as well as other infrastructure, to the U.S. economy is intuitively obvious, it has neither been easy to quantify nor has there been any urgency for researchers to do so. Until recently, no systematic research had been conducted to quantitatively link transport facilities to the well being of the economy. However, with national concern for the competitive position of the nation's economy and productivity, this linkage has become of increasing interest. A study by David A. Aschauer(1) has successfully modeled and quantified the contribution of public investment in infrastructure to economic productivity(2).

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(1) Aschauer, David A., "Is Public Expenditure Productive?", Federal Reserve Bank of Chicago, paper SM-88-7.

(2) Productivity is defined as the value of goods and services, in constant dollars, produced per unit of input--e.g., labor or capital. "Total productivity" or "total factor productivity", used interchangeably in this paper, refers to output per unit of combined labor and capital.

In his study, Aschauer associated the stock of the nation's total infrastructure with private sector productivity. As a variation to that study, this analysis focuses on the highway component of public infrastructure, and attempts to isolate the impact of the slowdown in the growth rate of the federal and state highway stock on private sector productivity. Upon cursory examination of the data between 1950 and 1985, one finds a striking correlation between the rate of growth in the stock of highway infrastructure and the rate of growth in productivity. After having normalized the data to remove the effects of time trends and business cycles, this close association becomes quite apparent as depicted in figure 1.

To test the hypothesis that productivity in the private sector of the economy is strongly associated with the availability of highway stock, two sets of econometric models are constructed. The purpose of the first set is to examine the empirical relationship between private sector capital productivity and the total stock of state and federal highways.(3)

The second set of models is formulated to analyze the relationship between private sector total input or total factor

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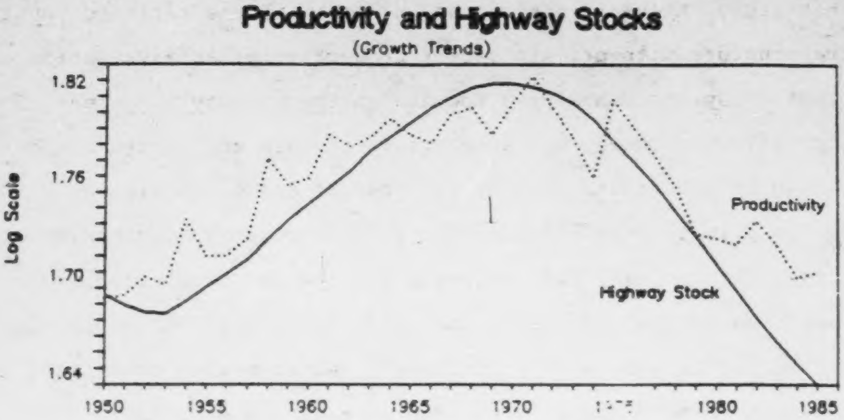
(3) As used in this paper highway stock is defined as the present value of the existing stock of highways, net of depreciation, and measured in constant 1982 dollars.


Productivity and Highway Stocks

(Growth Trends)

FIGURE 1:

After the effect of technological gains have been removed, the decline in productivity in the private sector (broken line) since the early 1970's has gone hand-in-hand with the decline in the real value (net of depreciation) of the total highway stock.

The slope of the two curves (expressed in log form) indicates the percentage change in the two variables over time.

productivity and the total stock of highways. It is hypothesized here that the growth rates in both productivity measures can be explained to a large extent by variations in the existing stock of highways. In other words, the proposition is made that the stock of public highways has greatly influenced the growth in productivity of the private sector, which in turn has influenced the growth of the United States economy and competitiveness of U.S. commodities in the international markets.

THE MODELS

I. CAPITAL PRODUCTIVITY

To analyze the relationship between the growth rate in the stock of highway infrastructure and private sector capital productivity, a Cobb-Douglas production function(4) with a working hypothesis of "constant returns to scale"(5) was employed. The production function is as follows:

$$Y = T * K^k * L^l * G^g$$

where:

Y = Private sector output.

T = Time. (A proxy for technological change and other unaccounted factors).

---

(4) It should be noted here that the Cobb-Douglas functional form employed in this analysis precludes the explicit modelling of the substitutability or complementarity of the inputs. That is, the elasticity of substitution is assumed to be unity. Future research on this topic will attempt to capture and quantify the interrelationship among all inputs by directly estimating the elasticities of substitution. To this end, more general production functions such as the constant elasticity of substitution (CES) production function and the translog production function will be used.

(5) By "constant returns to scale", it is meant that total private output is generated by labor, private capital and the total stock of public infrastructure in such a way that a doubling of output is achieved by doubling all three inputs simultaneously. More precisely, a simultaneous increase of one percent in each of the inputs would lead to a one percent increase in private sector output.

K = Private sector capital input.

L = Labor input employed.

G = The total stock of public infrastructure.

and,

k = Elasticity of private capital.

l = Elasticity of labor.

g = Elasticity of public infrastructure stock.

where $k + l + g = 1$ (Assumption of constant returns to scale.)

A statistical test was performed to support the assumption of "constant returns to scale". It was found that, during the sample period, the sum of the estimated coefficients were indeed not significantly different from 1. That is, the empirical evidence strongly suggests that a simultaneous increase of one percent in each of the inputs has resulted, on the average, in a one percent increase in real private sector output.

For the purpose of this study, we will disaggregate the stock of public infrastructure, G, and its respective elasticity, g. The various components will then be directly incorporated in the economy-wide production function and analyzed to reach a conclusion on the role that the stock of highways and streets has played in the growth of U.S. productivity.

The total stock of public infrastructure may first be disaggregated into a highway component and a nonhighway component:

$$G = H + NH$$

where:

G = Total public infrastructure stock.
H = The total stock of highways and streets.
NH = Nonhighway infrastructure stock.

The economy-wide constant returns to scale production function can therefore be expressed as follows:

$$Y = F\ (\ K,\ L,\ H,\ NH\ )$$

or more specifically,

$$Y = T * K^{k} * L^{l} * H^{h} * NH^{n}$$

where:

h = elasticity of highway stock.
n = elasticity of nonhighway stock.

Since during the sample period of 36 years the ratio of highway stock to nonhighway stock varied between .53 and .60, the following relationship is expected to hold approximately,

$$g = h + n.$$

That is, the sum of the highway and nonhighway elasticities should equal the elasticity of total public infrastructure. As a result we still have the following:

$$k + l + h + n = 1$$ (Assumption of constant returns to scale.)

The main purpose of working with a constant returns to scale assumption is that if one were to attempt to directly estimate all the production function coefficients, the problem of multicollinearity would be encountered. That is to say, since movements in each input (private capital, public capital and labor) are themselves strongly correlated over time, the direct estimation procedure would lead to unjustifiable estimates. One technique to circumvent this problem is to reduce the number of parameters to be directly estimated. The procedure employed here is such a technique.

Adoption of a constant returns to scale working hypothesis would allow us to deduce the following Log-Linear variant of the production function, (See appendix 1 for derivation.)

$$Ln(Y/K) = l*Ln(L/K) + h*Ln(H/K) + n*Ln(NH/K)$$

where the model's coefficients are defined as follows:

l = The resulting percentage increase in real private output from a one percent increase in labor services.
(Labor elasticity.)

h = The resulting percentage increase in real private output from a one percent increase in the stock of highway infrastructure.
(Highway elasticity.)

n = The resulting percentage increase in real private output due to a one percentage increase in nonhighway infrastructure.
(Nonhighway elasticity.)

Before estimating the parameters "l", "h" and "n", it is necessary to introduce the capacity utilization rate (CU) of the manufacturing sector to control for output fluctuations due to the influence of the business cycle. In addition, since we are using time series data (the data was observed for the years 1950 to 1985), a variable for time (T) must be included in the general specification of the model.

These adjustments yield the following equation.

1.) Ln(Y/K) = B + t*T + l*Ln(L/K) + h*Ln(H/K) + n*Ln(NH/K) + c*Ln(CU) + E

where:

T = Time in years. (1950=1, 1951=2, 1952=3, etc.)

CU = Capacity utilization rate.

B = A constant.

t = The average growth rate of output to capital rati (capital productivity) not explained by the other specified variables during the period of study. (e.g., technological change and other unaccounted factors.)

c = The percentage change in the output to capital ratio resulting from a one percent change in the capacity utilization rate.

and,

E = An errors measure which is a surrogate for all omitted variables whose joint influence is negligible in explaining the variation in the output.

The parameters "t", "l", "h", "n", and "c" were estimated by the method of Ordinary Least Squares (OLS).

Analyzing 36 years of historical data by employing the OLS procedure, the model yielded the following estimated log linear private sector capital productivity regression equation:

$$
\begin{aligned}
1'.)\ \ln(Y/K) &= \underset{(-10.6)}{-10.9} + \underset{(3.78)}{.0092*T} + \underset{(4.44)}{.444*\ln(L/K)} + \underset{(3.85)}{.226*\ln(H/K)} + \\
&\qquad \underset{(1.65)}{.163*\ln(NH/K)} + \underset{(7.95)}{.37*\ln(CU)}
\end{aligned}
$$

R-BAR SQUARED: 0.9819 DURBIN-WATSON STATISTICS: 1.547942

STANDARD ERROR OF THE REGRESSION: 0.008674 NORMALIZED: .499418

All but one of the t-statistics are statistically significant at the 1% level. The t-statistic for the nonhighway stock is significant at the 10% level but is very close to the critical value of 1.69 for the 5% level. Therefore, we may reasonably conclude that each explanatory variable is significant in helping explain the variation in capital productivity.

Additionally, as the R-bar squared measure indicates, 98% of the variation in private sector productivity can be explained by the combined effects of time, labor, private sector capital, the stock of highways, the nonhighway infrastructure stock and the capacity utilization rate.

A test for serial correlation was also performed to rule out the possibility that the influence of the omitted variables (E) is significant and anything other than purely random. In other words, it is necessary that the sum of the effects of all omitted variables be purely random in order to arrive at a meaningful interpretation of the specified model. As a result, the Durbin-Watson Test was employed to address this concern. Since 36 observations were made using 5 explanatory variables, the critical values of the D-W d-statistic at the 5% significance level are d_l=1.175 and d_u=1.799. Since the calculated sample D-W statistic is 1.559, it lies in the zone of indecision. That is, at the 5% significance level the question of whether there exists any correlation among the residuals is inconclusive. On the other hand, it might be relatively safe to reject the null hypothesis of autocorrelation at the 1% significance level since the critical values in this case are d_l=0.988 and d_u=1.588. In summary, the specified functional form (see model equation on page 10) is close to explaining much of the variation of private sector capital productivity.

Of particular interest, one may note from the relatively high t-statistic how significant the stock of highways and streets has been in explaining movements in private sector output.

First, as was expected, the sum of the estimated highway and nonhighway elasticities of 0.389 came quite close to the estimated elasticity of the total public infrastructure stock of 0.42 which was derived using a separate model that did not disaggregate the components of total infrastructure. That model is not discussed in this paper.

Secondly, even though the average ratio of the real value of highway stock to nonhighway stock was 0.561 (56.1%) during the sample period, the elasticity for the highway component was 0.226 (22.6%) as opposed to 0.163 (16.3%) for the nonhighway component of public infrastructure. If this relation is confirmed, it would show that our nation's highway and street system has had a more than proportional effect on U.S. economic growth. More specifically, for every 10% increase in the stock of highway and streets, private sector output has grown by 2.26%. On the other hand, for every 10% increase in all other nonhighway public infrastructure stock, real private sector output has increased by 1.63%. This would indicate that, at first blush, the stock of highways and streets has had 38% more influence on private sector output than the stock of all other infrastructure combined.

II. TOTAL FACTOR PRODUCTIVITY

In developing the extent to which the stock of highway infrastructure influences total factor productivity growth, the assumption of constant returns to scale in the economy-wide production function was again employed. The same method of analysis, as discussed in section I, was also employed in this section. (See appendix 2 for derivation of total factor productivity models from general economy production function.)

2.) $Ln(Y/CI) = B + t*T + h*Ln(H/CI) + n*Ln(NH/CI) + c*Ln(CU) + E$

where:

B = A constant

t = The average growth rate of total factor productivity due to technological change, etc.

CI = Combination input. A constructed unit of combined labor and capital services. The weights assigned to labor and capital, as calculated by the Bureau of Labor Statistics, correspond to the share of total real income each receives from the generation of output in the economy.

h = The percentage change in private sector output due to a one percentage change in the stock of highway infrastructure.

n = The percent change in private sector output due to a one percent change in the stock of nonhighway infrastructure.

E = Error measure.

The variable for time and capacity utilization rate are introduced again for the same reasons as was explained in the capital productivity model in the first section of this paper.

Before proceeding, it should be noted that since we are working with a "constant returns to scale" assumption throughout this analysis, the parameter estimates in this section are to be interpreted in exactly the same manner as they were in the capital productivity section.

On estimating the equation using the method of Ordinary Least Squares, one obtains the following sample regression equation:

$$
\begin{array}{l}
2'.)\ \mathrm{Ln}(Y/CI) = \underset{(-13.45)}{-10.52} + \underset{(16.1)}{.008*T} + \underset{(4.34)}{0.238*\mathrm{Ln}(H/CI)} + \underset{(1.6)}{0.134*\mathrm{Ln}(NH/CI)} \\
\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\quad \underset{(14.2)}{0.386*\mathrm{Ln}(CU)}
\end{array}
$$

R-BAR SQUARED: 0.996 DURBIN-WATSON STATISTIC: 1.535

Again, upon review of all the t-statistics one may conclude that all specified explanatory variables, except the stock of nonhighways, are significant at the 1% level in explaining variations in total factor productivity. (Again, the stock of nonhighways is significant at a 10% level.)

Furthermore, the combined effect of these variables explain about 99% of the variation observed in total factor productivity (i.e., the variation in private sector output per combined unit of labor and private sector capital) during the sample period.

The test for the possible existence of autocorrelation was again inconclusive at the 5% significance level. But, with 4 regressors and 36 observations the critical values of the D-W d-statistic are d_l=1.043 and d_u=1.513 at the 1% level of significance. With a calculated D-W of 1.535, the result indicates no autocorrelation at this significance level.

As expected, the results mirror those obtained in the capital productivity section. Since this procedure involves estimating one less parameter in each case, the estimated coefficients may be more dependable. That is, as can be observed from the higher t-statistics, the possible problem of multicollinearity has been ameliorated somewhat.

Of particular significance, one may note that the estimated elasticity of the stock of highways and streets of 0.238 is consistent with the previous estimate. Also, the estimated elasticity for nonhighway stock is .134, which again is close to the result obtained in the capital productivity equation.

To further support the results obtained so far, the total public infrastructure stock was disaggregated in various ways to analyze the stability of the estimated coefficient of highways and streets.

The following components of public infrastructure stock were isolated:

$$G = H + M + SW + O$$

where:

G = Total public infrastructure stock.
H = The stock of highways and streets.
M = The stock of mass transit and airport facilities as well as the stock of gas and electric facilities.
(Note that the data for the four components of "M" is not separately available.)
SW = The stock of sewers and water systems.
O = All other infrastructure stock.

The same methodology that was used in the first model was employed here to estimate all appropriate parameters of the economy-wide production function. Only one method of disaggregation yielded a significant model specification result.

$$3.)\quad \mathrm{Ln}(Y/CI) = B + t*T + h*\mathrm{Ln}(H/CI) + m*\mathrm{Ln}(M/CI) + osw*\mathrm{Ln}((O+SW)/CI) + c*\mathrm{Ln}(CU) + E$$

m = The elasticity of M with respect to output.
OSW = The elasticity of combination unit of 0 and SW.

On estimating the equation using the OLS method, the following results were obtained.

$$3'.)\quad \mathrm{Ln}(Y/CI) = \underset{(13.1)}{-10.17} + \underset{(13.7)}{.009}*T + \underset{(4.45)}{0.242}*\mathrm{Ln}(H/CI) - \underset{(-0.848)}{0.0221}*\mathrm{Ln}(M/CI) + \underset{(1.77)}{0.13477}*\mathrm{Ln}((O + SW)/CI) + \underset{(14.4)}{0.386}*\mathrm{Ln}(CU)$$

R-BAR SQUARED: 0.996 DURBIN-WATSON STATISTIC: 1.626

Again, the Durbin-Watson test is used as a measure of specification error. That is, the test is employed to determine whether the model construction is correctly specified. With 5 regressors and 36 observations, the lower bound, at a level of significance of 1%, is 0.988 while the upper bound is 1.588. The obtained value of 1.626 indicates that there exists no autocorrelation or specification error at a 1% level of significance.

Looking at the stock of highways and streets, one finds again a rather large t-statistic. Also, the estimated elasticity of .242 does not deviate significantly from the previous estimates.

From the results obtained in the three estimated regression equations, one may reasonably conclude that the stock of highways and streets has been significant in explaining variations in private sector productivity. In addition, the estimated elasticity using the three model specifications proves to be stable (between .226 and .242).

SUMMARY AND FINDINGS

As stated before, this study was conducted to test the hypothesis that productivity in the private sector of the economy is strongly associated with the availability of highway stock. For this purpose, two separate sets of econometric models were constructed to try to explain this association in terms of productivity of both capital, and combined labor and capital inputs in the private sector.

The results of the model provide a preliminary support to the proposed hypothesis -- i.e., variations in the availability of highway stock can, to a large extent, explain variations in the productivity of private sector capital investments, as well as that of capital and labor combined. In other words, full economic benefits of investments in capital and labor in the private sector can be achieved when an adequate supply of public infrastructure in general, and highways in this particular case, exist to go along with such private investment. Conversely, a decline in the availability of highways would lead to a decline in the productivity of both labor and capital in the private sector of the economy. These findings are supported by significant statistical results of the models (over 98% explanatory power). Some specific findings of the two sets of models are:

- On the average, for every 10 percent increase in the stock of highway infrastructure, adjusted for inflation, a corresponding increase of between 2.26 and 2.42 percent in real private sector output was realized.

- The results obtained from the models in this study demonstrate that the stock of our nation's highways have had a proportionally greater effect on private sector productivity than all other components of public infrastructure combined. In other words, as we have observed from the data in the sample period, highways comprising only about 1/3 of the value of total public infrastructure in the U.S. have been responsible for well over one half (between 57 and 60 percent) of the gain in private sector output attributable to public infrastructure.

- Considering the strong association between the level of highway stock and productivity in the private sector, one might argue that, a priori, inadequacies of highway facilities could lead to loss of economic production and productivity.

APPENDIX 1

Model 1

The first model attempts to construct a relationship between private sector capital productivity and the level of public infrastructure stock.

Assuming a Generalized Cobb-Douglas form of the economy-wide production function yields the following equation:

$$Y_t = B * L_t^{l} * K_t^{k} * G_t^{g}$$

where:

Y_t = aggregate real output at time t.
B = a constant.
L_t = laborhours at time t.
K_t = capital service at time t.
G_t = the level of public infrastructure at time t.
l = elasticity of labor with respect to output.
k = elasticity of capital with respect to output.
g = elasticity of public stock with respect to output.

Assuming constant returns to scale over L, K and G and that each factor is paid according to its marginal product, we can further define the paramaters l, k and g as the relative shares of total output due to labor, capital and the public input. That is, according to Euler's Theorem, this production function can be written as follows.

$$Y_t = L_t * dY_t / dL_t + K_t * dY_t / dK_t + G_t * dY_t / dG_t$$

where for example:

$$(L_t * dY_t / dL_t) / Y_t = l, \text{ total labor share of output.}$$

Furthermore we can write the following,

$$Y_t = B * K_t^{(1-l-g)} * L_t^{l} * G_t^{g}, \qquad \text{since } l+k+g=1$$

or

$$Y_t = B * K_t * K_t^{-l} * K_t^{-g} * L_t^{l} * G_t^{g}$$

Dividing by K_t and collecting terms yields the following capital productivity function,

$$Y_t / K_t = B * (L_t / K_t)^{l} * (G_t / K_t)^{g}$$

Upon taking the logarithm we obtain:

$$Ln(Y_t / K_t) = LnB + l * Ln(L_t / K_t) + g * Ln(G_t / K_t)$$

This gives us the form of the private sector productivity equation in which we are able to estimate the parameters 1 and g directly using the method of Ordinary Least Squares. G_t represents the public infrastructure component and as such, it may encompass total infrastructure or any combination of components thereof with slight adjustments made.

APPENDIX 2

Model 2

The second model simulates the relationship between total private factor productivity and the level of public infrastructure.

Again assuming a Generalized Cobb-Douglas form of the economy-wide production function yields the following equation:

$$Y_t = B * CI_t^{z} * G_t^{g}$$

where:

Y_t = aggregate real output at time t.

B = a constant.

G_t = the level of public infrastructure at time t.

CI_t = a combination unit [illegible] labor and private capital inputs at time t.

z = elasticity of labor/capital unit with respect to output.

g = elasticity of public infrastructure with respect to output.

In constructing the expression for CI_t, it is necessary to make some assumption about the manner in which the rents from public services are appropriated by the private factors of production. At this point an assertion is simply made that private sector shares are proportionally related to their true marginal productivities. Again assuming constant returns to scale over K_t, L_t and G_t we may proceed as follows:

The share of real output that accrues to labor is,

Labor share = L * (w * dY / dL) / Y = w * l

where,

dY / dN = the marginal product of labor

l = the elasticity of labor with respect to output.

w = the proportionality constant.

Similarly,

Private capital share = K * (w * dY / dK) / y = w * k

dY / dK = the marginal product of capital

k = the elasticity of capital with respect to output.

w = the proportionality constant.

Since we are assuming constant returns to scale across all factors in the production process and public infrastructure's contribution is apportioned accordingly, we may write the following equalities:

$$l + k + g = wk + wl,$$ due to the appropriation process.

$$l + k + g = wk + wl = 1,$$ assumption of constant return to scale.

Rearranging terms we get,

$$1 - g = l + k$$

As a result the combination input may be written as,

$$CI = K^{wk} * L^{wl}$$

We therefore can rewrite the production function as follows,

$$Y = (K^{wk} * L^{wl})^{k+l} * G^{g}$$

or

$$Y = (K^{wk} * L^{wl})^{1-g} * G^{g}$$

$$Y = (K^{wk} * L^{wl}) * (K^{wk} * L^{wl})^{-g} * G^{g}$$

Dividing by $(K^{wk} * L^{wl})$ and rearranging terms we obtain the following function relating total factor productivity to the stock of public capital.

$$Y / (K^{wk} * L^{wl}) = B * [G / (K^{wk} * L^{wl})]^{g}$$

Upon taking the logarithm we obtain:

$$Ln(Y_t / CI_t) = LnB + g * Ln(G_t / CI_t)$$

where again,

$$CI_t = K_t^{wk} * L_t^{wl}$$

Therefore this functional form expressed in logarithms enables us to directly estimate the parameter, g, simply by using Ordinary Least Squares. Again, G_t represents the public infrastructure component and as such, it may encompass total infrastructure or any combination of components of it.

Before proceeding in the estimation process of both models, one must introduce the capacity utilization rate explicitely in each equation. This is employed to control for the influence of the business cycle. That is, part of real output fluctuations in the economy is due to variability in the rate of capacity utilization of private capital. In addition, a variable for time is introduced in the model specification in order to capture the effect of technological change.

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ADDRESSING MODERN TRANSPORTATION CHALLENGES

CALIFORNIA'S
RECOMMENDATIONS
FOR A POST-INTERSTATE
NATIONAL SURFACE
TRANSPORTATION
PROGRAM

JUNE 1990

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EXECUTIVE SUMMARY

The Surface Transportation and Uniform Relocation Assistance Act of 1987 expires in Federal Fiscal Year (FFY) 1991. The debate triggered by the upcoming expiration of the legislation and the prospect of completing the Interstate System, presents a major generational opportunity to frame a new surface transportation policy responsive to the needs of today's economy and tomorrow's opportunities.

The rich potential of this opportunity will be irrevocably lost if the debate and policies that emerge default to the assumptions, institutional relationships, and programs that shaped the policies of three decades ago. The nation's economy, demographics, institutions, political agenda, international relations, infrastructure, and its transportation problems have fundamentally changed since the creation of the Interstate System and urban mass transportation programs.

It is within this changed environment that we must fashion the objectives and programs of a new national surface transportation program. A new program must be designed to:

- preserve our existing national infrastructure investment;
- refocus national policies to respond to urban congestion, rural access, intermodal connectivity, and air quality;
- give priority to projects (regardless of mode) that offer the best solution to each region's transportation problems.
- new partnerships and respective responsibilities that will assist the nation to remain competitive in a global economy; and,
- provide accountability to Congress for achieving national objectives.

California believes that the following recommended structural changes in the overall federal, state, and local transportation partnership — including program consolidation, financial arrangements, and federal oversight — are critical to an efficient and responsive use of whatever level of resources that may be provided.

It is the clear intent of California that the proposed structural changes should not be considered to be contingent upon expanded federal funding.

Following are California's recommendations for a new national transportation program:[1]

PROGRAM STRUCTURE

FEDERAL HIGHWAY PROGRAM — HIGHWAY SYSTEM OF NATIONAL SIGNIFICANCE

- The Highway System of National Significance (HSNS) Program as authorized by Congress, would aim to preserve our nation's investment in its interstate transportation system; aid interstate commerce and national defense; and expand our domestic and international commerce and trade. The HSNS would be a state designated highway network based on Congressionally established national transportation goals and objectives.
- Each state Department of Transportation in cooperation with the United States Department of Transportation (US DOT), would designate its HSNS based on Congressionally identified criteria that reflect the national goals and objectives for the HSNS.
- Congress would set the broad goals and objectives for the HSNS. The US DOT would establish specific measures to be used by states to assess the performance of the HSNS in meeting these goals and objectives. Every two years US DOT would issue a systems performance report for review by Congress.

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[1] *California's detailed recommendations for a new national transportation program have been developed as a package; each recommendation is interconnected with and builds upon other recommendations. Because this is a complex issue the reader is encouraged to consult the full report and appendices for a more detailed explanation of the recommendations.*

FEDERAL AID SURFACE TRANSPORTATION – HIGHWAYS

- The Federal Aid Surface Transportation – Highways (FAST-Highways) Program would relax the customary categorical program designations. (It is an extension of the Combined Road Plan Program concept created by Congress in 1987.) The FAST-Highways Program would provide a framework for states to pursue broad national goals and objectives set by Congress yet recognize the state and local focus of the FAST-Highways system and its bridges and their support of the HSNS.
- The FAST-Highways Program would allow states and local jurisdictions the flexibility to choose from a broad range of transportation solutions to respond to their unique set of transportation concerns.
- Each state in cooperation with their regional and local agencies, would be required to establish FAST-Highways Program guidelines. These guidelines provide a program framework that ensures accountability as well as the flexibility to pursue solutions which bring the most efficient increase in mobility and effectively address regional and local land use, air quality, and economic development issues.
- The FAST-Highways Program is not a block grant program but, like the HSNS, is an evolutionary step that replaces a series of largely unrelated categories with a uniting program that continues to be directed by Congressionally specified goals, objectives and outcomes.

HIGHWAY PROGRAM FUNDING

- Our goal is to provide each state with the opportunity to use its total resources (federal, state, local and other), in ways that will respond effectively to its specific circumstances and objectives.
- To advance this end, Congress should specify the split of total federal funding between the HSNS and FAST-Highways Programs to be 50%/50% and that each state be allowed to transfer up to 20 % of its total federal highway apportionment from one program to the other.
- Funding for the HSNS program should be apportioned to states by a formula using factors that are decoupled from direct ties to the designation of the national highway system itself. California recommends that total public road mileage, diesel fuel consumption and VMT be the factors used in the apportionment formula for the HSNS Program.
- Funding for the FAST-Highways Program should be apportioned to the states based on their proportionate contributions to the federal highway trust fund.
- The matching ratio for both the HSNS and FAST-Highways Programs should be 85% Federal and 15% State/Local/Other. It is critical that Congress establish the same matching ratio for both highway programs, so that an incentive to chase cheaper federal dollars at the expense of the best transportation solution will not be created.
- As it has been done historically, the new transportation act should continue to include various assurances to provide equitable funding levels for all states.

MASS TRANSPORTATION PROGRAM — PROGRAM STRUCTURE

- As a first step towards bringing the transit and highway programs together, California believes that the transit component of the national transportation program should have a structure similar to that recommended for the highway programs.
- Existing federal transit programs should be consolidated into two programs: the Transit System of National Significance (TSNS) and the Federal Aid Surface Transportation-Transit (FAST-Transit) Programs.
- The TSNS Program would be a discretionary program aimed at addressing issues of na-

tional significance. The program would be complementary to the HSNS in meeting Congressionally identified goals and objectives.

- In order for transit projects to be eligible for the TSNS program, they would have to be within a designated HSNS Corridor and meet Congressionally identified eligibility criteria.
- The FAST-Transit Program, which would work in conjunction with the FAST-Highways Program, would be a formula apportioned program aimed at pursuing national goals and objectives set by Congress.
- The FAST-Transit Program would consolidate and streamline the various existing federal transit programs into one program. Eligible project types under a consolidated program would include: capital investment needed to replace and rehabilitate current equipment and facilities; capital investment necessary to retain current market share; new starts and extensions; and transit operating support.[2]

MASS TRANSIT PROGRAM FUNDING

- The reliability and predictability of federal funding must be improved through increased reliance on formula apportionment and on dedicated funding at the federal level while still recognizing past commitments.
- On a national basis, the Mass Transit Account funds would be split 15% for the TSNS Program and 85% for the FAST-Transit Program. States should have the opportunity to permit regional agencies to shift between or combine their FAST-Highways and FAST-Transit Programs funding in accordance with an adopted Corridor Plan or Regional Transportation Plan.
- Funds for the FAST-Transit Program, would be apportioned to the states based upon their proportionate contributions to the federal Mass Transit Account.
- The matching ratios for the HSNS, FAST-Highways and FAST-Transit Programs would be set at 85 percent Federal and 15% state/local/other with an optional overmatch.

- The suggested federal contribution for the TSNS discretionary program would be in the range of 25% to 50% of the project costs which would require 75% to 50% of the project costs to be borne by those most benefitted by the project.

PRIVATIZATION

- Privatization can help bridge the widening gap between transportation infrastructure investment and funding. California believes there are several areas where the benefit of private investment can be tapped including: bridges, roadside rest areas, the HSNS program, and Intercity Rail.
- Congress should create a discretionary bridge program, that is a revolving fund and funded at a maximum level of 2 percent of the total highway allocation. As a precondition, a jurisdiction applying for funds must certify that a good faith effort was made to promote private investment and operation of the facility. Because the larger, higher volume bridges would be more attractive to private funds, the smaller, low traffic bridges could

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[2] *In urbanized areas above 200,000 population, there should be a limit on the amount of the area's apportionment that could be used for operating assistance.*

potentially have greater access to this limited revolving fund program.

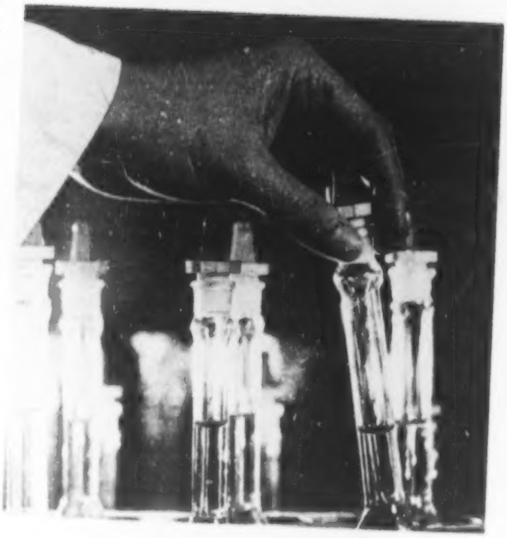
- Many states are finding it increasingly difficult to construct and maintain sufficient roadside rest areas along their major roadways. States should be authorized to permit private for profit enterprise to locate at roadside rests in return for lease income (to be used to construct additional roadside rests) and full maintenance of the rest areas' free public services.
- Retrofit toll facilities on HSNS facilities could help to ensure the preservation of the HSNS under the ever increasing demands for limited federal and state funds. Congress should authorize the states to place retrofit toll facilities on those segments of the HSNS that are beyond their design life, provided that all net revenues be used for rehabilitation, resurfacing, and restoration projects on the tolled facility.
- California recommends that Congress review and change the existing tax structure where necessary to encourage increased private investment in passenger and freight rail systems.
- Additional benefit could be realized if states were permitted access to rail corridors (under franchise or concession agreements) which may be subject to the exclusive rights of AMTRAK, when that state has an economically viable alternative to AMTRAK service in that corridor and the viability of AMTRAK's national railway network is not threatened.
- A number of significant tax related barriers at the national level discourage or limit the private sector's interest in risking capital on public infrastructure. Congress is called upon to eliminate these inhibiting statutory provisions.

SPECIAL INTEREST PROJECTS

- Special interest projects appear to be the result of two Congressionally recognized deficiencies in the existing highway program structure. Special interest projects tend to address gaps in national policy (e.g., port access) or the inability of local district projects to compete favorably with other

statewide priorities. Basic changes such as those recommended for the Highway Program Structure will ensure that these gaps in national policy do not continue to occur.

- However, when a need for a special interest project is identified, it should meet certain funding and programmatic criteria. Those are: the special interest project is a high priority within the statewide transportation program of projects; it is clearly among the highest priorities within the local jurisdictions; and the state/local agencies are willing to share in the cost of the project.



PLANNING

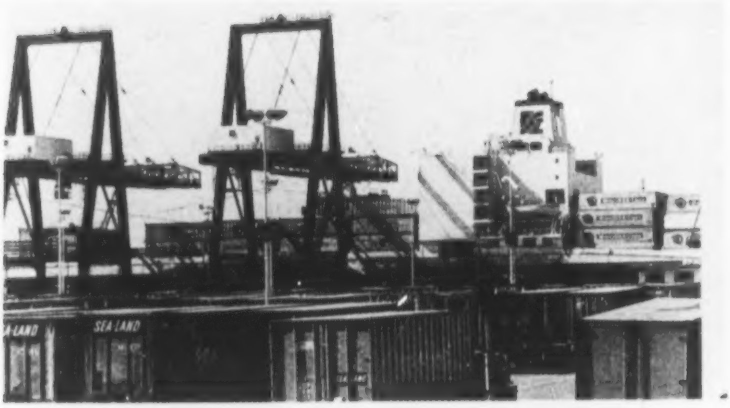
- At the national level, Congress must set the example for coordinated, cooperative planning and ensure that all policies and planning requirements through the various federal departments and agencies are mutually reinforcing.
- The existing federal "3C" planning process should be strengthened and employ a subregion/corridor approach.
- Congress should continue to fund multimodal planning at the state and regional level that is directed by overall strategic national policy direction. Federal planning funds should be available for use without regard to modal definition.

RESEARCH AND DEVELOPMENT

- Congress should authorize the US DOT to establish a national transportation technology research and development agenda to be coordinated by a nationally recognized blue ribbon panel, targeting promising experimental technology and supporting special interest projects which accelerate technology transfer.
- Challenge grant funding should be made available for research and development programs to be conducted by states, private consortia or educational institutions consistent with the national agenda.
- To increase participation by private consortia in the national transportation research and development agenda, changes in tax and antitrust laws will need to be explored.

AIR QUALITY

- Congress should ensure that all national transportation, air quality and energy policy is implemented through mutually reinforcing regulations and requirements. An



advisory panel of state and local transportation agencies should be formed to develop detailed recommendations for transportation related air quality program implementation.

INTERMODALISM

- The new national transportation program must shift the emphasis from single mode competitive systems to intermodal, cooperative and interdependent systems. Congress can aid this shift in emphasis by specifying that a given percentage of transit funds for highways, transit, and aviation be available at the discretion of the state and local entities for joint funding (with the private sector, where appropriate) of intermodal passenger and freight transportation facilities.

PROGRAM EFFICIENCIES

- California recognizes the essential role played by the US DOT and believes that it should remain responsible for ensuring the effective use of federal transportation resources. However, many of the controls and procedures developed under existing program regulations should be modified to reduce program and administrative costs in the new program.

TRANSPORTATION SAFETY

- The current federal highway safety programs should be consolidated into a single driver-performance grant program. This would reduce the need for separate program authorizations, minimize program application requirements and red tape, and increase program flexibility.
- National traffic safety goals and objectives would be established by the Congress. The US DOT would establish, in cooperation with states, local jurisdictions and private sector interests, performance thresholds for each state.
- Each state would be required to report to the US DOT regarding their state system's safety performance versus its performance threshold.

FEDERAL FUNDING

- The Highway Trust Fund should be made permanent and obligation limits should be gradually eliminated by $1.5 billion per year.
- Decisive action is required by Congress to reduce the extent to which tax evasion is "stealing" from the Highway Trust Fund.
- Congress, in mandating the use of alternative fuels in air quality non-attainment areas, should discontinue the special fuels tax exemption or shift subsidies to the general fund.
- States experiencing rapid growth will probably find that innovative and creative financing is necessary in all aspects of their transportation improvement program. These concepts, however, should not be mandated for use by all states, but rather be available on a permissive basis
- In order to facilitate the transition between the existing program and the new program, California recommends that Congress adopt one final cost estimate to fulfill the long standing commitment to complete the Interstate system and Interstate Substitute Projects. The necessary authorizations and distributions should be spread over the life of the next Surface Transportation Assistance Act in accordance with a state by state obligation plan coordinated through US DOT.

In summary, California's recommendations for a national transportation program address a number of diverse problems including the need for: greater program flexibility to meet differing regions' needs; a new federal, state, regional, local partnership that recognizes greater program management and resource contribution responsibilities should reside at state and local levels; a need for Congress to ensure that states are accountable for the results of program implementation; greater integration and connectivity among key transportation modal systems; and new, creative means to finance total systems needs.

We are continuing to consult with representatives of other federal, state, regional and local officials and private transportation interests in order to find common ground in the development of specific legislation to implement the policy framework.

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INTRODUCTION

This report details California's recommendations for a new federal transportation program. These recommendations were developed through consultation with state, regional and local officials and private stakeholders from California and throughout the nation. We hope that they will serve as a basis for future dialogue.

Our recommendations are based in large measure on the following widely shared conclusions:

- We've become a nation of diverse metropolitan and rural regions with differing geographic, demographic and economic characteristics. Huge changes in where and how we live, go to work, and send our goods to market, require new approaches in how we manage and fund future transportation programs.
- Through the efforts of past generations, we have modern highways, transit systems and railroads that unite the nation, propel its economic progress and enhance its quality of life. These systems are now our responsibility to manage and preserve and, as necessary, to expand and unite. New systems require new programs and policy initiatives to help realize their full capabilities for present and future generations.
- Our nation must redirect its collective efforts toward moving people, information, and goods rather than moving vehicles. The new federal program must refocus national policies to respond to relieving urban congestion, improving rural access, fostering intermodalism, enhancing air quality and giving priority to projects (regardless of mode) that offer the best solutions to each region's transportation problems.
- The essential element for an effective future program is a new federal, state and local partnership. One that provides greater program flexibility — with accountability to Congress for the achievement of national objectives; places greater program management and resource contribution responsibilities at state and local levels; permits use of creative means to finance total systems needs — including more opportunities for private sector investment and management.

Consistent with these points, California seeks the creation of a surface transportation act for the nineties that:

- Maximizes the effectiveness of current highway trust fund receipts by dedicating user fee revenues solely to transportation needs — keeping them exempt from non-transportation uses and available to the states at authorized levels each year;
- Postpones consideration of increases in user fees until all current and future fees are committed to their intended transportation purposes, and alternative fuel exemptions are reconsidered;
- Provides full funding for the completion of the unfinished Interstate Construction Program including substitute projects;
- Takes a comprehensive approach to highway safety;
- Defines federal program transportation responsibilities among the various levels of government;
- Encourages policies that will promote economic strength in regional markets;
- Reconciles differences between environmental and transportation policies and makes these policies mutually reinforcing.

The text that follows suggests to Congress, the type of program structure and related creative approaches — many involving all levels of government — that would implement the objectives listed above.

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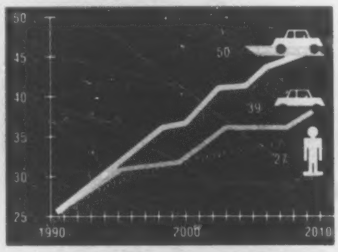

STATE OF CALIFORNIA CONGESTION INDEX

Population		
	1988	28.7 million
	2010	36.3 million
Vehicles		
	1988	22.4 million
	2010	31.1 million
VMT (Vehicle Miles Traveled)		
	1988	224 billion
	2010	342 billion

OUR NATION MUST REDIRECT ITS EFFORTS TOWARD MOVING PEOPLE, INFORMATION, AND GOODS RATHER THAN VEHICLES.

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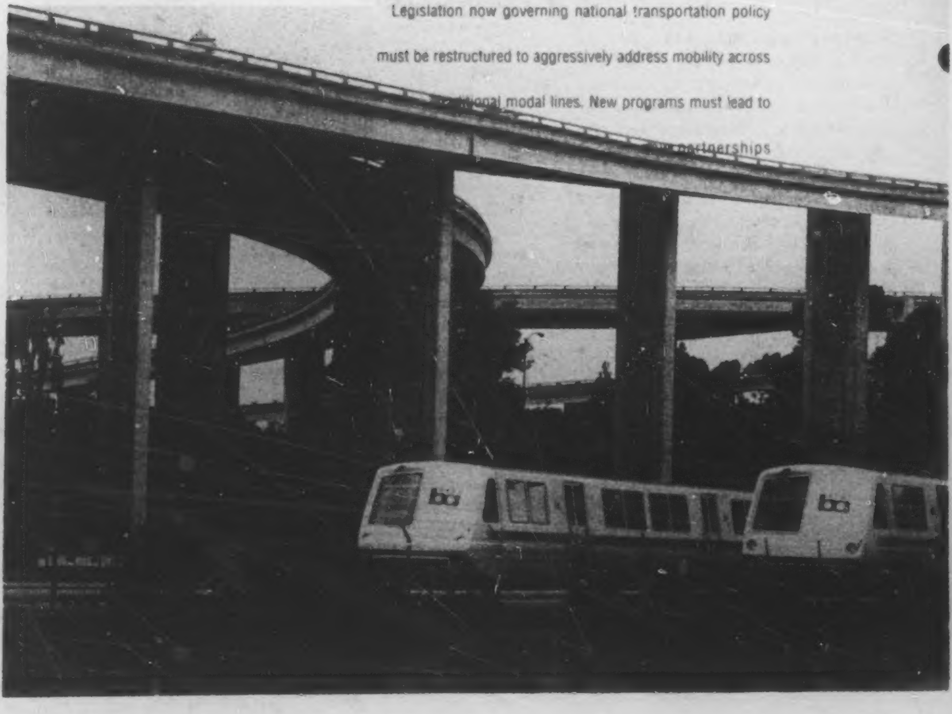
PROGRAM STRUCTURE

If meeting the nation's future transportation service needs required only a "business as usual" approach, the preparation of a new surface transportation act would be relatively straight forward. However, decades old policies are no longer fully effective. National and regional demographics and changing development patterns demand innovative, flexible and better coordinated programs if we are to remain a significant player in the world economy.

Legislation now governing national transportation policy must be restructured to aggressively address mobility across itional modal lines. New programs must lead to partnerships



and more clearly drawn responsibilities. They must allow the nation to remain competitive in a global economy, while providing accountability to Congress for achieving national goals and objectives.

California believes that changes which consolidate programs, spur innovative financial arrangements, and create strategy based federal oversight are critical to efficient and responsive future transportation systems regardless of the level of resources provided federally. Our major goal is to help fashion a national program that will be viewed, in years to come, with the same level of respect as the program now drawing to a close. California's recommendations for a post-interstate national transportation program, drawn along these lines follows.

CHANGES TO PROGRAM STRUCTURE MUST OCCUR REGARDLESS OF THE LEVEL OF RESOURCES PROVIDED FEDERALLY

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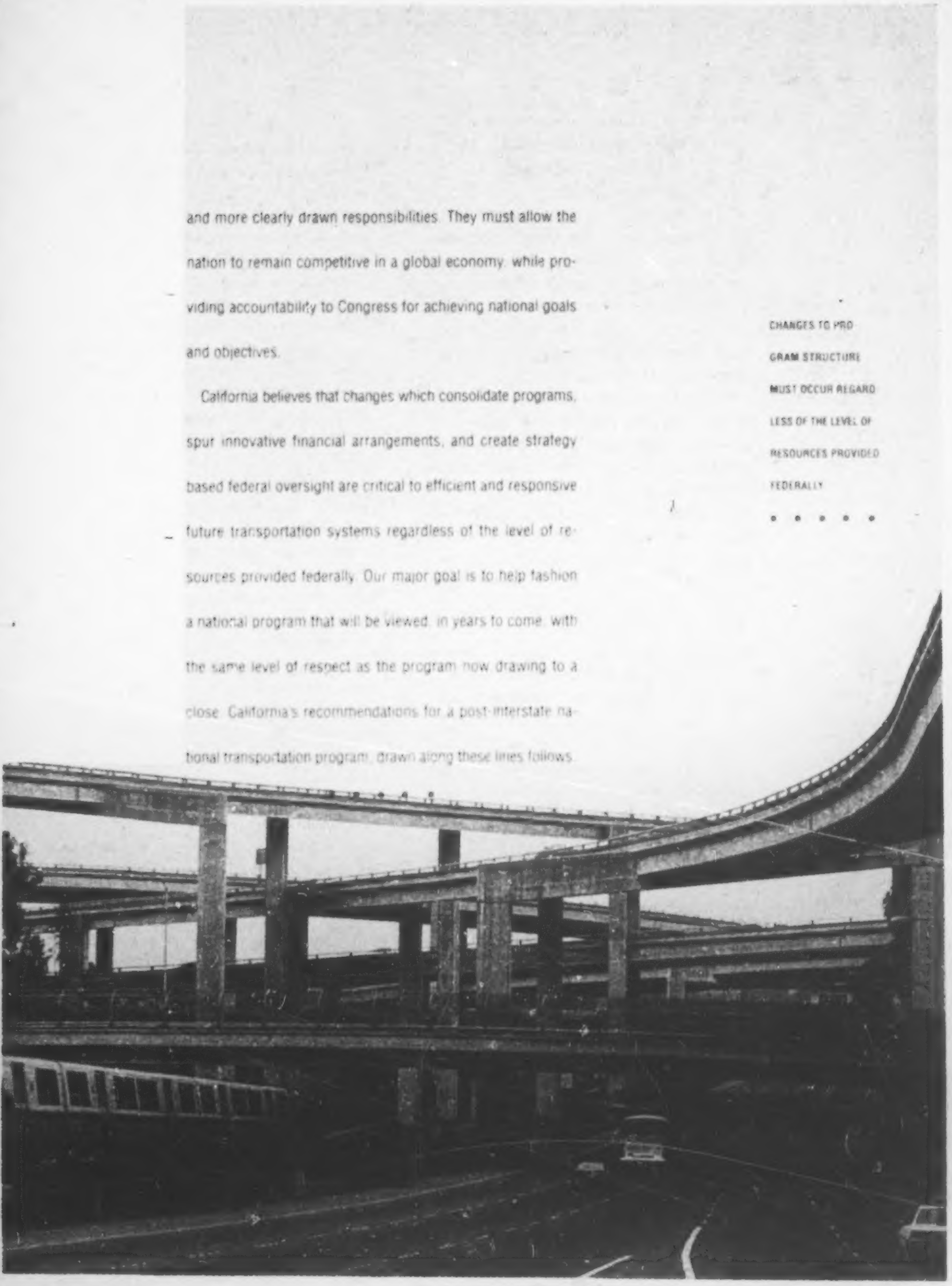

FEDERAL HIGHWAY SYSTEM OF NATIONAL SIGNIFICANCE (HSNS) PROGRAM

The federal, state, and local governments have an inherent interest in the existence of a well maintained and integrated interstate transportation system. Broad national defense, economic, safety, and international policy goals are advanced by efficient transportation systems which ensure the free movement of people, goods, and information.

EACH STATE DESIGNATES ITS HSNS BASED ON CONGRESS'S GOALS AND OBJECTIVES.

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We recommend that Congress focus national resources upon the important goals of preserving the nation's investment in its interstate systems and ensuring that these systems continue to actively support interstate commerce, the national defense and the linkage of major urban areas. Also, national investments should increasingly encourage domestic and international commerce and trade. Based on congressionally established national transportation policy and objectives, a new federal high priority highway network, a Highway System of National Significance (HSNS), should be designated from the most vital elements of the current network.

DESIGNATING THE HSNS

All currently approved and designated Interstate Highways would be incorporated into a new Federal Highway System of National Significance (HSNS). In addition, each State Department of Transportation (DOT) — in cooperation with the United States Department of Transportation (US DOT) and in consultation with regional and local governments and private sector users, — would designate other strategic portions of its respective principal arterial networks as part of the HSNS. HSNS segments would be required to meet one or more of the following defense and commerce related criteria[1]:

HSNS MILEAGE WOULD NOT BE A FACTOR IN DISTRIBUTION FORMULAS.

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1. Provide major access to military installations that employ 500 or more permanent civilian or military personnel.
2. Serve as a major freight distribution route handling an Annual Average Daily Truck Traffic volume (AADTT) over 2,000 with at least one half of the truck traffic including vehicles of three or more axles; and for those additional highways where AADTT is over 5,000.
3. Provide access to international airports with a minimum of 1.5 million enplanements per year or 10,000 tons of air cargo per year or access to intermodal yards (including water ports) handling a minimum of 6000 twenty-equivalent units (TEUs)[2] per week or 1.0 million short-tons per year.
5. Connect international border crossings that service over 100,000 people crossing into the US per month.
6. Serve as the principle access to national parks, recreation areas, monuments, or historic sites with over 1,000,000 annual attendance.

After a system has been developed based on the above criteria, each state in conjunction with US DOT will exercise judgement to ensure continuity and connectivity. Each state would be able to amend its HSNS, with the approval of the Secretary, commensurate with changes in conditions and circumstances in each state. For example, the opening or relocation of an international airport may require that access roads to the airport be designated as part of the HSNS to make it eligible for HSNS fundz.

The HSNS Program would be supported with a mix of federal and state funds. Eligible projects would include highway rehabilitation, resurfacing, restoration, capacity expansion and new highways meeting HSNS criteria.

The cumulative mileage of eligible HSNS projects would not be a determining factor in the distribution formulas used for HSNS allocations. Instead, funds would be distributed through factors which solely correlate with the achievement of national goals and objectives. In this way the program can avoid the potential bias arising from the states' attempts to increase funding by maximizing the miles present in the HSNS program.

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[1] *These criteria are for illustrative purposes and will need further refinement. A map depicting the HSNS system for California based on these criteria is included in the back cover pocket.*

[2] *TEU is an industry standard of measurement for the number of shipping containers held by a vessel.*

The HSNS funding mechanism also should allow the following variation to encourage innovative solutions to severe metropolitan congestion problems. Urbanized areas with limited opportunities for physical expansion of existing HSNS facilities, could use HSNS funds to improve supporting subsystems, where it can be shown that the HSNS routes would substantially benefit from this investment. For example, improvements to parallel systems (including transit systems) within the HSNS service corridor are likely to offer substantial direct and measurable benefits to HSNS operations.

In fact, Federal guidelines should authorize and encourage states to use HSNS funds for related improvements within a defined HSNS corridor — provided that the improvements are consistent with the metropolitan area's Regional Transportation Plan and can be shown to be more cost effective than direct expenditures on HSNS facilities.

Under other proposals including AASHTO's, existing interstate toll roads would be designated as HSNS routes. California recommends selected HSNS designated routes that are currently untolled be allowed to become toll roads and still retain eligibility for HSNS funds. Tolls collected on these select HSNS routes would be used to fund rehabilitation, resurfacing or restoration projects on the tolled facility and on non-HSNS roadways within the HSNS service corridor as described previously. Any toll revenues that are in excess of what is needed to preserve the tolled facility, should remain in that state for expenditure on other HSNS routes.

ACCOUNTABILITY

Each state would be accountable to Congress for meeting performance improvement standards tied to expenditures made on the HSNS system. For example, every two years State DOTs would be required to prepare a performance report on its HSNS system. The US DOT would review, and consolidate these reports and transmit the summary findings to Congress. Congress would then determine if its program's goals and objectives were being met and take actions as necessary to encourage performance improvement.

Under this scheme, Congress, by statute, would set the broad goals and objectives for the HSNS. The US DOT would establish specific measures based on Congressional goals and objectives to be used by states to assess their performance. Each State would report on their success in improving statewide system performance in relation to its previous annual performance (e.g., previous year, two years, three years, etc.).

Appendix A contains goals, objectives, and performance measures that Congress could use to assure the effectiveness of the HSNS program.

EACH STATE IS ACCOUNTABLE FOR THE PERFORMANCE OF THE HSNS.

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RECOMMENDATIONS TO CONGRESS

1. Require that the Highway System of National Significance advance direct national interests with regards to interstate commerce, national defense, transportation and economic improvements in domestic and international markets.
2. Designate the Highway System of National Significance according to the specific criteria and mechanism set forth on page 4.
3. Use performance criteria and specific measures of the type listed in Appendix A in assessing the effectiveness of the Federal HSNS program.

FEDERAL AID SURFACE TRANSPORTATION-HIGHWAYS (FAST-HIGHWAYS) PROGRAM

Effective national transportation policy must recognize that states and their metropolitan and rural regions are often unique in terms of their infrastructure requirements and transportation networks. These regions are sometimes found to be at different stages of development and have different federal/state/local and private relationships, different land use practices, and different approaches to promoting their respective economies.

To successfully respond to this diversity, each state and locality will require a unique mix of capital and operating strategies to meet current and future transportation objectives including metropolitan congestion relief, rural access improvements, increased intermodalism, and preservation of environmental resources. Moreover, these transportation strategies must be integrated with overall environment and quality of life concerns of the communities they serve.

The new national transportation program can support these efforts by establishing simple and direct policies that encourage regional "systems" approaches. One such approach is to analyze and define transportation needs within transportation subregions and corridors.[3] This approach works across modal lines, overcomes jurisdictional boundary provincialism, and transcends the traditional separation of public and private responsibilities.

THE FAST-HIGHWAYS PROGRAM WOULD BE SUFFICIENTLY FLEXIBLE TO ALLOW A BROAD RANGE OF LOCAL TRANSPORTATION SOLUTIONS.

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In order to address the nation's growing and diverse transportation problems, Congress needs to create a program that is sufficiently flexible to allow for a broad range of transportation solutions. California proposes the establishment of a Federal Aid Surface Transportation-Highways (FAST-Highways) program that permits state and local jurisdictions to tailor solutions to their unique set of transportation concerns.

The FAST-Highways Program would be notable for the absence of customary categorical designations such as Federal Aid Primary (FAP), Federal Aid Secondary (FAS), and Federal Aid Urban (FAU). The FAST-Highways Program is not, however, a block grant which generally provides little or no accountability to Congress.[4]

The FAST-Highways Program would be evolutionary — moving from the current program based on a series of largely unrelated categories to one directed by Congress through specified goals, objectives, and outcomes. Project selection would focus on addressing national transportation goals and solving problems rather than on numerous spending categories which may or may not address the identified need.

FAST-Highways would assist states and localities pursuing broad national goals and objectives, as set by Congress, through their local collector systems and be funded through the Federal Highway Trust Fund. The FAST-Highways system would consist of all highways (including bridges) functionally classified as arterials, urban collectors, and rural collectors other than those designated as part of the HSNS. Local streets and roads also are not included.

In order to accommodate the differences in relative need among states and regions between the HSNS and the FAST-Highways Program, we recommend that up to 20% of a State's total apportionment for the FAST-Highways Program and the HSNS be transferable from one program to the other.

In addition, states would be required to provide regional/local systems with annual aggregate FAST-Highways apportionments that are no less than the FFY 1991 apportionment that would be available through urban funds (FAU), secondary funds (FAS), and bridge funds (HBRR) accounts. Since each state has developed allocation processes unique to their own state/local relationships, the process used for allocation of these funds should not be altered by Congress.

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[3] *The Corridor/subregional approach seeks the cooperation of all entities affected by a given transportation problem arising within a specific transportation corridor or subregion. Flexible funding from the effected entities would be used to select the best solution without regard to mode. See page 26 for additional details.*

[4] *The FAST program is an incremental extension of the Combined Road Plan demonstration authorized by Congress in Section 137 of the 1987 Act.*

Each state, in cooperation with its regional and local agencies, would establish joint guidelines for implementing the FAST-Highways Program. The guidelines would include criteria for setting priorities and encouraging regional intermodal solutions, where appropriate. The guidelines would ensure that administrative costs are minimized through the simplification of processes and the application of controls that ensure accountability for both funds and projects. The guidelines should ensure that each agency has the flexibility to use the funds for those transportation solutions which bring the most efficient increase in mobility and best address regional and local land use, air quality, and economic development issues.

ACCOUNTABILITY

States would be accountable to Congress for the results of expenditures of funds for the FAST-Highways Program and its supporting contribution to the HSNS. Congress would set broad goals and objectives for the FAST-Highways system taking into account the state and local focus of the system. The US DOT, acting as an agent of Congress, would establish specific performance measures which would allow for the differing characteristics of individual states.

One year prior to the expiration of the next Surface Transportation Assistance Act, each State DOT would be required to prepare and submit a statewide report on the performance of the FAST system to the US DOT. US DOT would review and consolidate all fifty reports and transmit a summary of findings and recommendations pertaining to reauthorization of the FAST-Highways Program to Congress.

Suggested Congressional goals and objectives, and related US DOT performance measures which would focus the FAST-Highways Program on those areas perceived to be of major national concern are set forth in Appendix B.

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RECOMMENDATIONS TO CONGRESS

1. Streamline and consolidate the many existing categorical programs (e.g., FAP, FAU, FAS, HBRR) into a single new Federal Aid Surface Transportation Highways (FAST-Highways) Program.
2. Define a FAST-Highways Program that makes a significant contribution to national goals and objectives including reduction of metropolitan congestion, improvement of rural access, and provision of local and subregional support of the Federal Highway System of National Significance.
3. Make roadways and bridges (except local streets and roads)[5] not included in the HSNS, eligible for FAST-Highways Program funding.
4. Use performance oriented federal oversight of the Federal Aid Surface Transportation Program to support and enhance the existing roles and responsibilities established between the states and localities.
5. Specify that each state apportion an annual aggregate amount of the FAST-Highways Program funding to non-state systems. That apportionment would not be less than the federal fiscal year 1991 amount for urban, secondary, and bridge funds. The process for distributing funds to the non-state systems should be left to state and local discretion and at the state's option, allow the use of a Combined Road Plan.
6. Require each state, one year prior to the expiration of the next STAA, to report to the US DOT the extent to which the national performance objectives of the type listed in Appendix B.

IMPLEMENTING GUIDELINES FOR FAST-HIGHWAYS WOULD BE DEVELOPED BY THE STATE, REGIONAL AND LOCAL AGENCIES

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[5] *Local streets and roads are those roads not classified as part of the principal arterial, minor arterial or collector systems. They serve primarily to provide direct access to abutting land and access to the higher order systems.*

HIGHWAY PROGRAM FUNDING

The emerging national transportation program should provide to each state the opportunity to use its total resources, including federal aid, in ways that are most responsive to its specific circumstances and objectives. The common denominator among necessarily diverse programs is that each state and local government needs to have the necessary flexibility to address its unique transportation problems.

FUNDING FLEXIBILITY

Flexible funding can be achieved in several ways. For example, the FAST-Highways program would remove many of the federal categorical proscriptions on funding, making it easier for each state to satisfy their unique intra-state and metropolitan transportation needs.

This approach could be strengthened by creating a single intermodal account (similar to the consolidated transportation program in Maryland) in which funding from the mass transit and highway trust fund sources, can be combined to permit metropolitan areas to design integrated highway/transit strategies that best suit their unique circumstances.

HIGHWAY TRUST FUNDS WOULD BE APPORTIONED 50% HSNS AND 50% FAST-HIGHWAYS; 20% OF THE TOTAL COULD BE SHIFTED FROM ONE TO THE OTHER.

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HSNS/FAST-HIGHWAYS PROGRAM FUNDING DISTRIBUTION

To provide requisite flexibility, Highway Trust funds would be split 50% for the Federal Highway System of National Significance Program and 50% for the Federal Aid Surface Transportation Program. States would have the discretion to shift up to 20% of their total apportionment from one program to another depending upon their needs.

HIGHWAY APPORTIONMENT FORMULAS

The allocation of federal funds to the HSNS should be based upon factors that correlate well

with the Congressionally defined goals and objectives but are independent of direct HSNS size characteristics. California's proposed funding formula would not, therefore, be based on manipulable factors such as needs, condition, or project cost estimates of a mileage defined system. In other words, it would use formula factors that are decoupled from criteria directly designating the extent of the national highway system itself.

Decoupling preserves the integrity of the HSNS and ensures greater equity in the distribution of trust fund resources. Decoupling can be accomplished by distributing trust fund resources to the states on the basis of factors such as total public road mileage, diesel fuel consumption, and vehicle miles traveled (VMT). This approach provides state by state flexibility in system definition and programming; avoids penalizing those states that have already heavily invested large amounts in their highways; encourages states to be objective in defining their HSNS and reporting its conditions; and utilizes objective and currently available data for allocations.

Specifically, California believes that the apportionment formula should be based on total statewide urban and rural lane miles, total statewide urban and rural VMT, and statewide diesel fuel consumption.[6] We recommend that for the HSNS Program, funds be distributed based on the following formula:[7]

- 2/9 of the funds based on total statewide rural lane miles and VMT;
- 4/9 based on total statewide urban lane miles and VMT; and,
- 3/9 based on statewide diesel fuel consumption.

Funds for the FAST-Highways Program, however, would be apportioned to the states based upon their proportionate gas tax contributions to the federal highway trust fund. In this program, it is especially equitable to use this portion of gas tax collected to meet state and local needs.

Except for a limited high-cost discretionary bridge revolving fund,[8] basic bridge needs should be accommodated within the two Federal highway programs.

FEDERAL/STATE MATCHING SHARES

It is essential for both rural and urban states that the matching ratios for the HSNS program and the FAST-Highways Program be the same. By maintaining the same matching ratios for the HSNS and FAST-Highways Programs, states will have no incentive to "chase" cheaper federal dollars at the expense of the best transportation solution. National transportation policy should be established through Congressionally set goals and objectives for the national highway program not through funding restrictions and matching ratios.

THE APPORTIONMENT FORMULA SHOULD BE BASED ON TOTAL STATEWIDE LANE MILES, TOTAL STATEWIDE VMT, AND STATEWIDE DIESEL FUEL CONSUMPTION

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Less affluent rural states with stable or diminishing tax bases and large urban states grappling with local and regional transportation problems need to maintain low state matching ratios across both federal programs. Therefore, the recommended matching ratio for the Federal Highway System of National Significance Program and the Federal Aid Surface Transportation Program should be set at 85 percent Federal/15 percent state/local/other with an optional state/local/other overmatch.

STATE AND LOCAL MATCHING RATIOS SHOULD BE THE SAME FOR ALL PROGRAMS.

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FUNDING GUARANTEES

Historically, the surface transportation assistance act has been designed to provide equitable funding levels for all states and localities. California urges Congress to provide the following equitable guarantees in the current reauthorization:

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[6] *Diesel fuel consumption serves as a surrogate for heavy truck use.*

[7] *See Appendix B for further discussion of the formula and example allocation tables.*

[8] *See "Privatization," page 17 for an explanation of the recommended bridge program.*

1. **Assure that no state will receive less than one-half percent of the total national apportionment for support of the system of national significance.**
2. **Continue to apply minimum allocation provisions to apportionments for the Federal Highway System of National Significance Program recognizing the donor state responsibilities to the national system.[9]**
3. **Return to each state an amount proportionate to its contribution to the highway trust fund under the new FAST-Highways Program.**
4. **Ensure that all states would receive no fewer federal dollars in 1992 and thereafter under the new program than they received under the current federal aid program in FY 1991 (after adjustment for interstate and interstate substitution completion and for amounts reflective of special demonstration or discretionary funding and other take-downs).**
5. Retain the existing federal matching share adjustment for both the HSNS and FAST Programs for states with non-taxable National Forest Lands, Public Lands, Indian Lands, and National Parks and Monuments Lands.
6. Guarantee that annual amounts allocated in aggregate to non-state systems (FAU, FAS and HBRR) would increase proportionately with any increase in the funding for the FAST-Highways Program.

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RECOMMENDATIONS TO CONGRESS

1. Adopt reauthorization language that would provide 50 of total federal funding to the Highway System of National Significance (HSNS) and 50 to the Federal Aid Surface Transportation Highway (FAST-Highways) Program.
2. Allow each state to transfer up to 20 of its total federal highway apportionment from one program to the other.
3. Adopt a HSNS Program apportionment formula that is designed [illegible] HSNS [illegible] needs.
4. Distribute the HSNS funds according to the distribution formula [illegible] page 9.
5. Base the FAST-Highways Program apportionment formula upon each state's proportionate contributions to the Highway Trust Fund.
6. Establish the federal-state project funding participation ratios for both the HSNS and FAST-Highways Programs at 80 Federal and 20 Other with provision for state or other overmatch.
7. Adopt formulas for the distribution of highway trust funds with equitable features outlined on page 10.

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[9] *Provide for a so-called "Minimum Allocation" (MA). Started in 1983, each state was guaranteed a share of the total federal highway apportionments and allocations that was no less than 85% of their attributable payments to the federal highway trust fund. While a carefully designed allocation system will minimize the number of Minimum Allocation (MA) states, it remains important to avoid a return to the aggravated donor status experience by some states during the 1960s and 1970s.*

MASS TRANSPORTATION PROGRAM

MASS TRANSPORTATION PROGRAM STRUCTURE

Just like the highway component of the national transportation program, it is time to renegotiate the compact between the federal, state and local governments with respect to transit programs. Flexible use and equitable distribution of transit funds, as well as follow-through on current transit commitments, need to be made part of the new mass transportation program.

Importantly, the recommended structural changes are necessary for an efficient and responsive transportation system regardless of the level of resources provided federally.

One of the fundamental tenets of a new national transportation policy, aimed at managing mobility and enhancing cleaner air, must be a commitment to increasing the number of people traveling through a corridor rather than accommodating an ever-increasing number of vehicles. Public transportation or "mass transit" services is necessarily an important element in meeting mobility needs. To deliver full benefit from these services, transit must be envisioned as more than large urban bus or rail networks. Mass Transit must embrace an array of services including use of other high occupancy vehicles such as vans, carpools, and jitneys to meet regional commuter needs.

WE ARE COMMITTED TO INCREASING THE NUMBER OF PEOPLE MOVING THROUGH A CORRIDOR RATHER THAN VEHICLES.

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California believes that the transit and highway programs should be brought together to fully advance the personal mobility of all our citizens. To do so, the transit component of the national transportation program should have a structure similar to that recommended for highway programs. Existing federal transit programs should be streamlined and consolidated into two programs: the Transit System of National Significance (TSNS) and the Federal Aid Surface

THE MASS TRANSPORTATION PROGRAM WOULD CONSIST OF THE TSNS AND THE FAST TRANSIT PROGRAMS.

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Transportation-Transit (FAST-Transit). Within this broad framework, the new federal-aid transportation program can establish goals and objectives for the transportation system and allow use of a portion of federal funds for combined transit and highway projects (FAST Programs).

TRANSIT SYSTEMS OF NATIONAL SIGNIFICANCE (TSNS)

The Transit Systems of National Significance (TSNS) Program would be a discretionary program aimed at addressing issues of national significance such as congestion, safety, air quality, economic development, energy, etc. and would support the Highway System of National Significance (HSNS).

The TSNS program would be complementary to the HSNS in meeting Congressionally identified goals and objectives. The goals and objectives for the TSNS would be similar to the goals and objectives for the HSNS. These goals and objectives are listed in Appendix C.

ELIGIBILITY FOR THE TSNS

In order for transit projects to be eligible for the TSNS program, they would have to be within a designated HSNS Corridor (with some possible rural exceptions) and meet all of the first five Congressionally identified criteria plus one or more of additional criteria. These criteria could include the following:

1. Cost Effectiveness as demonstrated by common performance criteria, including: annual project capital cost per passenger mile, annual system operating cost per passenger, and annual passenger mile per vehicle mile.
2. State/Local Funding Commitment shown by substantial dedication of state and non-state funds for the total project (including multi-year segments) costs as presented in a total viable project financial plan. At least 25% of the system's operating costs should come from value capture.
3. Travel-time Savings demonstrated through reduced travel time costs for peak period travel.

TSNS PROJECTS WOULD HAVE SPILLOVER BENEFITS FOR THE HSNS

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4. System Value of the Project demonstrated by the expected cost and service benefits for the existing intercity and commuter travel and additional benefits to the HSNS corridor.
5. Congestion Management established through improved service standards, increased alternative transportation methods, and implementation of land use and trip reduction strategies consistent with Regional Transportation Plans, Corridor Concepts and Air Quality Plans.
6. Amenities for Passengers including increased passenger comfort and safety would be shown by reductions of overcrowding, increased frequency of service and improved accessibility for disabled travelers.
7. Cost Reduction Strategies implemented as part of a productivity improvements plan.
8. Service Reliability as shown by improved on-time performance, reliability and peak period travel through-put.
9. Passenger Carrying Ability of new guideway starts, new exclusive busway starts, guideway extensions or system enhancements measured by additions to system physical capacity and the market viability of the capacity to be added.
10. Accessibility demonstrated by system increased access for older persons and persons with disabilities, including wheel chair users.
11. Air Quality Benefits measured by reduced vehicle miles of travel and increased person miles traveled.
12. Economic Development indicated through increased opportunity for local and regional economic growth and joint use opportunities.

SUPPORT OF THE HSNS

TSNS projects are intended to provide spillover benefits for the HSNS. Most urbanized areas and emerging corridors in rural areas have limited opportunities for physical expansion of existing HSNS facilities. Those areas must address their growing congestion through enhanced performance of the HSNS brought about by technological advances and augmentations to

VARIOUS EXISTING FEDERAL PROGRAMS WOULD BE CONSOLIDATED INTO THE FAST TRANSIT PROGRAM

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supporting subsystems (or TSNS). In addition to the TSNS program, California has recommended that federal guidelines authorize and encourage (not mandate) states and local agencies to use Federal TSNS Program funds for related improvements within the TSNS corridor. These improvements must be consistent with the metropolitan area's Regional Transportation Plan, Corridor Concept, and Air Quality Management Plan.

FEDERAL AID SURFACE TRANSPORTATION PROGRAM TRANSIT (FAST TRANSIT)

The FAST Transit Program, which would work in conjunction with the FAST Highway Program, would be a formula apportioned program aimed at pursuing national goals and objectives similar to the goals proposed for the FAST Highway Program. The national goals and objectives would recognize the state and local focus of the program as well as the FAST Transit role in support of the TSNS and HOVs.

Suggested goals and objectives are listed in Appendix D.

The FAST Transit Program would consolidate and streamline the various existing federal programs into one program. Eligible project types under a consolidated program would include capital investment needed to replace and rehabilitate current equipment and facilities; capital investment necessary to retain current market share; new starts and extensions; and transit operating support.[10]

The definition of major capital projects should be broadened to clearly include consideration of fixed guideways, transitways or busway facilities, bus replacements, and exclusive HOV lanes as well as the traditional rail, light rail and expanded bus lines. All forms of high occupancy and shared ride services, and other methods to improve urban transportation efficiency, as well as traditional transit, would be part of the broader definition of public transportation.

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[10] In urbanized areas over 200,000 population, there should be a limit on the amount of the area's apportionment that could be used for operating assistance.

MASS TRANSPORTATION PROGRAM FUNDING

To address public transportation needs in all areas of the nation, from dense urban to rural, the nation's changing mobility needs must be met through a variety of services and approaches. Each state and local government must have the necessary flexibility to tailor its transportation options to their specific market.

The reliability and fair share apportionment of MTA federal funding must be improved through increased reliance on formula allocation and on dedicated funding at the federal level. The substantial contribution of public transportation to the achievement of major national goals provides justification for continuing a commitment of both dedicated and general funds to support mandated actions.

15% OF MTA FUNDS WOULD GO TO THE TSNS PROGRAM AND 85% TO THE FAST-TRANSIT PROGRAM.

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TSNS/FAST-TRANSIT PROGRAM FUNDING DISTRIBUTION

Large discretionary capital elements of a federal transit program distort local decision-making toward capital-intensive transit systems which qualify for federal capital assistance, and lead to the neglect of more cost-effective strategies such as provision of HOV lanes. Major efforts to regulate planning and programming procedures at the local level have had relatively little effect on local decisions in the face of the strong incentives presented by Federal capital and operating assistance programs.

In order to plan and implement comprehen-

sive solutions to public transportation problems, a mix of transportation strategies is necessary. The Mass Transit Account is an important resource that should be made available throughout the nation on a fair and equitable basis.

On a national basis, the Mass Transit Account funds would be split 15% for the TSNS Program and 85% for the FAST-Transit Program. States should have the opportunity to permit regional agencies to shift between or combine their FAST-Highways and FAST-Transit Programs funding in accordance with an adopted Corridor Plan or Regional Transportation Plan.

FAST-TRANSIT APPORTIONMENT FORMULA

Funds for the FAST-Transit Program, would be apportioned to the states based upon the proportionate state contribution to the federal Mass Transit Account.

FEDERAL/STATE MATCHING SHARES

It is essential for both rural and urban states that the matching ratios for the HSNS program and the FAST-Highways and Transit Program be the same. By maintaining the same matching ratios for the HSNS, FAST-Highways and FAST-Transit Programs, states will have no incentive to "chase" cheaper federal dollars at the expense of the best transportation solution. National transportation policy should be established through Congressionally set goals and objectives for the national program not through funding restrictions and matching ratios.

The matching ratio for the HSNS, FAST-Highways and FAST-Transit programs would be set at 85 percent Federal and 15% state/local/other with an optional state/local/other overmatch.

The suggested federal contribution for the TSNS discretionary program would be in the range of 25% to 50% of the project costs which would require 75% to 50% of the project costs to be borne by those most benefitted by the project. The level of cost sharing should be based on a determination of the relative benefits and programmatic interest of the governments involved.

DESIGNATED RECIPIENTS

The current designated recipients of federal mass transit funds and the process for providing for their designation should be retained for the discretionary TSNS program. For the FAST-Transit program, the designated recipient should be the Regional Transportation Planning Agency or the state if no such agency exists for an area.

TRANSITION

Federal financing for public transportation should continue the full amount of general revenue funding that has been authorized for mass transit programs in 1991. All current resources of the Mass Transit Account (taxes plus interest) should be fully invested in an expanded service concept of public transportation. The MTA program financing should use the balances that have accumulated over the past five years to meet long delayed urban transportation solutions and to follow through on the previous commitments in the nine major urban areas.

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RECOMMENDATIONS TO CONGRESS

1. Sort out and define a transit mobility program that complements the HSNS and includes a state and local component that complements the FAST-Highways Program.
2. Continue to supplement the MTA from the General Fund.
3. Distribute no less than 85% of all Mass Transit revenues by a fair and equitable formula.
4. Fulfill the federal commitments to the nine major capital projects underway in cities throughout the US.
5. Require that no less than 25% of transit operating costs be recovered through value capture.

PRIVATIZATION

Despite a widely recognized need for increased funding, it has become increasingly apparent that budgetary constraints at all levels of government severely limit the likelihood of major new infusions of capital from excise tax and other traditional user fees. While the political unpalatability of raising additional taxes is apparent; the need to maintain and improve our transportation infrastructure during the 1990's and beyond presents a difficult and growing problem that federal, state, and local governments must address.

One potential source of additional funds for transportation facilities, not fully developed in the United States, is the private sector. When provided with the opportunity and appropriate environment, the private sector may find effective means to address not only their own business interests but also those of the public as a whole. Encouragement of entrepreneurship to meet the public transportation needs can result in substantial private capital investment, stable funding of critical infrastructure through limited user fees, and a lessening of pressure to raise revenues through conventional taxes. The bottom line is that increased privatization will help bridge the widening gap between transportation infrastructure investment needs and available funding.

Following are several program areas in which private investment can fully or partially contribute to narrowing infrastructure funding gaps.

PRIVATIZATION CAN HELP TO BRIDGE THE GAP BETWEEN NEEDED INFRASTRUCTURE INVESTMENT AND FUNDING.

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DISCRETIONARY BRIDGE PROGRAM

A large and growing number of America's bridges are in need of repair, rehabilitation or replacement. Various estimates place the cost of raising to standard 242,000 on and off system bridges at between $45 and $51 billion.[11] In view of the fact that the Highway Trust Fund has recently distributed roughly $12.5 billion each year for all highway and bridge projects in the United States, it would take the entire trust fund distribution for four or more consecutive years to satisfy the estimated bridge needs alone.

Both the proposed HSNS and FAST-Highways programs include bridges as an eligible expenditure. While a separate program for meeting the needs of bridges would be duplicative, it is likely that Congress will, in response to regional concerns, create a separate bridge program in an effort to begin addressing these neglected facilities.

We believe that the most appropriate form for such a program would be a discretionary and revolving fund type annually financed at a maximum level of 2 percent of total highway funding.[12] Clearly, even with massive increases in such a fund, only modest impact on the country's bridge problems can be expected. Other sources of capital must be sought and encouraged if the nation is to have a substantial impact on this growing problem.

Privatization offers one significant supplemental funding source, particularly with respect to the rehabilitation or replacement of larger, high volume bridges. As in the case of "borrowed" funds from a revolving fund, repayment of privately-invested capital costs would likely occur through tolls and value capture.

In order to increase the impact of the revolving fund on total bridge needs and to ensure access to these funds for low volume and rural bridges, states could be required to make a good faith effort to first offer the bridge repair or replacement to private interests as a privatization business opportunity. The response to such an offer would serve as a test of privatization feasibility prior to seeking capital from the revolving fund.

Inasmuch as larger, higher volume bridges would be attractive opportunities for private investors, the smaller, low-traffic bridges, typically found in rural areas, would have greater access to the limited funds in the bridge revolving fund. An exemption process should be established for lower volume bridges and states whose legislative bodies have precluded them from private toll bridge operations.

HIGH-VOLUME BRIDGES HAVE HIGH PRIVATIZATION POTENTIAL

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[11] *"Beyond Gridlock", Advisory Committee on Highway Policy, 2020 Transportation Program, June 1988, p.17.*

[12] *FFY 89-90 Bridge Discretionary funded at $225 million.*

SAFETY ROADSIDE REST AREAS

Many states are finding it increasingly difficult to construct and maintain adequate numbers of roadside rest areas along their major roadways. In some instances, existing roadside rests are being used for illegal activities including smuggling, drug distribution, and associated crimes against people. In addition, increasing maintenance costs are discouraging the development of additional new facilities and are creating growing pressure for deferred maintenance. As a direct result, some states have found it necessary to close certain rest areas to the public. As more and more highway miles are logged by the public, this presents a serious and growing safety problem.

PRIVATIZATION OF SAFETY ROADSIDE REST AREAS COULD LEAD TO AN INCREASE IN THE NUMBER OF REST AREAS.

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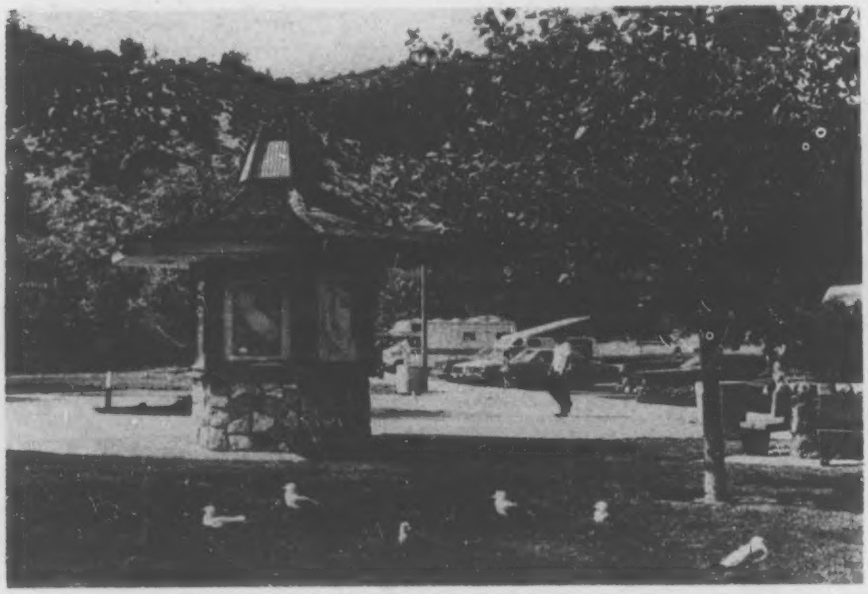
Privatization can be harnessed to satisfy both public and business interests as they relate to roadside rest areas. Private interests can be attracted to long-term lease arrangements under which profit-making facilities located in the rest area (within the highway right of way) can serve as the incentive to maintain free public services such as parking, picnic areas, restrooms, security, etc. Through the operation of service stations, restaurants, retail outlets, and vending, private operators would be required to maintain all for-profit and free service facilities, including pavement, structures, lighting, landscaping, and provide for the protection of the public. Net lease revenues collected by government could be used to construct additional and badly needed rest areas at other locations.



HSNS PROGRAM

Conceptually, the HSNS is composed of those roadways that address direct national interests including defense, international trade, interstate travel, domestic commerce, and related concerns. The interstate system of roughly 43,500 miles along with some portion of other major roadways serving these direct interests, would be identified and made eligible for funds allocated for the HSNS program. Even a system only modestly larger than the existing Interstate will become increasingly difficult to maintain in view of the age and use of the system.[13]

In view of the limited funds available for the protection of the national system, it may now be appropriate to consider the use of retrofit tolls on selected portions of the HSNS. Tolling could be allowed only at the discretion of the US DOT Secretary with all net revenues earmarked for preservation (rehabilitation, resurfacing or restoration) projects on the tolled HSNS segment. Any toll revenues in excess of the amount required to preserve the tolled facility would remain within the respective state for use on other HSNS routes.

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RECOMMENDATIONS TO CONGRESS

1. Create a separate revolving bridge fund, administered at the USDOT Secretary's discretion and funded at a maximum level of 2 percent of the total highway apportionments. This bridge program also should require, as a precondition for funding, proof that the jurisdiction applying for funds has made a good faith effort to promote private investment in and operation of the facility.
2. Permit states to allow private for-profit enterprise to locate at roadside rests in return for lease income (to be used to construct additional roadside rests) and full maintenance of the roadside rests' free public services.
3. Authorize states, with the approval of the Secretary, to place retrofit toll facilities on selected segments of the HSNS that are beyond their design life, provided that all net revenues are used for rehabilitation, resurfacing, and restoration projects on the tolled HSNS facilities.
4. Authorize the Secretary to permit States to "buy out," at current market value, the federal investment in federally aided transportation facilities (rights of way, and bridges).
5. Authorize the Secretary to waive the NEPA process on private facility connections to federally aided facilities when it is determined that the connection has only minor impact and the State's environmental clearance process has been determined to be functionally equivalent to the NEPA process.
6. Amend existing tax codes to provide for accelerated depreciation, favorable treatment of losses and access to tax exempt financing for privately-built-publically-owned transportation infrastructure.
7. Establish the position of full time ombudsman for transportation privatization at US DOT who will have access to the Secretary and who has modal and functional cross-cutting authority.
8. Give the US DOT Secretary demonstration authority to waive sections of Title 23 and 49 USC and associated regulations or directives for purposes of encouraging and exploring privatization efforts.[14]

CONSIDERATION SHOULD BE GIVEN TO RETROFIT TOLLS ON THE HSNS.

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[13] 1% of the nation's highways carry 21% of all traffic.

[14] An example of such authority may be found in the Social Security Act at 42 USC, Section 1315. The authority granted to the Secretary of Transportation could also include authority to seek waivers or suspensions of provisions of statutes other than 23 and 49 USC (for limited periods of time).

CREATIVE FINANCING

It is expected that preservation of the transportation system will include Transportation System Management (TSM), restoration, resurfacing, rehabilitation (3R), capacity expansion, and other improvements. However, in rapid growth areas, high cost capital projects may be necessary.

Creative financing techniques (ie., advanced construction funding, toll provisions, and multi-state compacts), may be needed along with regular formula apportionments. Recent use of the term "creative financing" has drawn greater attention to the overwhelmingly obvious fact that traditional government user fees can no longer be considered the sole source for transportation infrastructure capital.

CREATIVE FINANCING CONCEPTS SHOULD BE AVAILABLE ON A PERMISSIVE BASIS.

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Although creative financing concepts are potentially useful to the nation as a whole, states experiencing rapid growth most likely will find that innovative and creative financing is necessary in all aspects of their transportation improvement program. Therefore these concepts should be made available on a permissive rather than a mandated basis.

To varying degrees, states and local governments have made use of a variety of devices as means of supplementing the more familiar user fees. Among these are local sales taxes earmarked solely for transportation; developer and special district fees intended to compensate for the additional trip demand created; limited privatization of small projects funded by entrepreneurs to create access to developable land; and more recently in Virginia, Florida and California, the creation of processes that will lead to large private capital investments in major toll transportation facilities (See page 16 to 19 for additional details.)

In recent years, Congress has "reformed" the tax code to sharply curtail federal tax exemptions for certain state and local bonds. While this action has eliminated some egregious abuses, it has had the unintended side-affect of sharply limiting public-private sector partnerships that provide many needed transportation physical improvements. Perhaps it is time for Congress to review its policies with respect to state and local tax exempt bonds and to restore incentives which will effectively encourage increased private participation in public transportation projects.

Federal tax laws, which provide significant incentives to auto use and none for transit use, also should be revised to support national objectives and to create a more level playing field among modes.

PUBLIC CAPITAL CREATION

In addition to direct user fees such as fuel taxes, registration fees, licensing fees and the like, state and local governments are accustomed to issuing long-term tax exempt debt backed by general revenues (general obligation bonds) and future revenue backed bonds (revenue bonds). The cost or interest on government issued long term debt is generally an indication of the credit worthiness of the governmental entity or the level of confidence in the projection of future revenues. General obligation bonds are, as the name implies, backed by the "full faith and credit" of the issuing government. Revenue bonds are customarily backed by expected revenues from specific sources such as tolls, developer fees, special assessments and the like.

In recent years, governments have begun to use more creative approaches to supporting long term debt. Among the devices being used are:

Special Benefit District Fees: Under this approach, capital is raised (or debt retired) through fees representing the improved service received by the district as a direct result of the construction of new or improved infrastructure. Special districts are usually defined as all "beneficiaries" within specified distances (benefit areas) of the new facility.

Tax Increment Districts: Tax increment districts, similar in many ways to special benefit districts, retire debt or support operations of new facilities through a local government commitment of the incremental increase in property taxes (value) that results from the new or improved infrastructure. In over simplified form, a property with an assessed value of $100,000 and taxed at $5,000 annually prior to the addition of a new roadway, increases in assessed value as a result of better highway access, to $150,000. The property tax based on the increased value would therefore be $7500 annually or $2,500 more than prior to the construction of the new roadway. That increment ($2,500) is used to retire outstanding debt or support operating costs (ie., maintenance) associated with the improvement.

Developer Fees: Developer fees are assessed on new residential and commercial development on an unit basis (e.g., per single family residence; per square feet of commercial space; etc.) in recognition of the need to accommodate increased travel demand created by the development.

In-Kind Contributions: Unlike developer fees, in-kind contributions may include voluntarily donated rights of way, buildings, developable land that the government may use in an asset management program (i.e. swap, sale, co-development, etc.).

Air Space Lease Revenue: Over, under and around most transportation facilities are large amounts of unused "air space" which often go unrecognized as valuable and manageable assets. While airspace leasing has developed slowly, it represents a highly valuable and untapped income generator. Examples include the lease of airspace within the right of way for commercial space such as, small business locations, office towers, retail outlets, and recreational attractions.

Sale of Governmental Facility Leases: A novel, and to the best of our knowledge yet untried, method for raising public capital is the sale of long term leases on existing transportation facilities. Under this concept, the lessee places a toll sufficient to maintain and operate the facility as well as service outstanding debt and provide an adequate rate of return. One example of such an arrangement might be the sale of a lease of up to 35 years on an existing bridge or roadway segment. The lease issuing governmental entity receives a lump sum of cash equivalent to the "value" of the lease and the lease holder's tolls return a reasonable profit. The facility remains a governmental property while the proceeds of the lease provide heretofore inaccessible opportunity value.

PRIVATE CAPITAL CREATION

In addition to capital raised through long established private equity and commercial debt markets, and the limited use of tax exempt industrial development bonds, private capital debt service may take place through several other less commonly used approaches. Among these are:

Tolls: Under privatized development of transportation facilities such as the planned extension of the Dulles Airport access road in Virginia, tolls will be used to retire capital debt along with meeting maintenance and operating obligations.

Public Contributions: Under certain circumstances, public funds may be contributed as seed money to encourage privatization of transportation facilities.[15] The donation of unused public lands, buildings or existing transportation facilities might also be used as inducements for privatization.

While certain issues related to the use of public funds and the relationship such use creates, public capital could provide a significant portion of total capital needs for privatized infrastructure. Of critical importance in such arrangements is the extent to which public dollars bring with them public obligations beyond those associated with repayment or equity interests.

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[15] *For example, in California, the Orange County Transportation Commission has offered $300,000 to the private sector as seed money for the study of two county transportation corridors.*

Public funds, unencumbered by major public policy conditions, may provide the gap filling private capital extender needed to attract private investment to public infrastructure particularly in marginal cases.

Sale of Development Rights: Development rights associated with the airspace surrounding a facility, at station locations in the case of rail, at rest areas on highways, or on easily accessible parcels served by interchanges, could be sold to raise capital. Alternatively, the principal transportation developer might retain an equity interest in co-development facilities, thus ensuring an income stream well into the future.

Assumption of Existing Toll Facilities: A very novel approach to attracting private capital is the donation of an existing toll generating facility as government's contribution to inducing additional development in a particular corridor. One recent example of this was the "donation"[16] of the Dartford toll tunnel between Essex and Kent, England to a privatization consortium that will build a bridge over the Thames River. Unknown is the extent to which the consortium was required to accept additional governmental regulation along with the tunnel toll proceeds.

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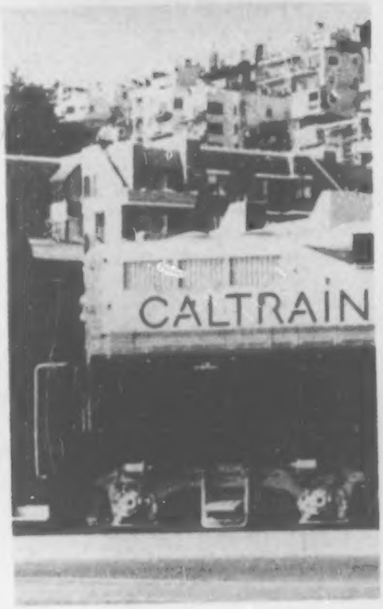
RECOMMENDATIONS TO CONGRESS

1. Delete from the tax code limitations on the use of industrial development bonds for privately built publicly owned infrastructure and that Congress increase substantially the authorized cap.
2. Permit the sale of lease hold rights to public facilities provided that the federal interest in such facilities is reimbursed.
3. Permit states and local governments to contribute rights to existing toll facilities as a means of inducing private investment in additional corridor facilities.
4. Provide to all modes tax incentives now enjoyed by automobile users.



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[16] *Trafalgar House, the winning bidder, paid the government an amount equal to the outstanding debt on the tunnel.*

INTERCITY RAIL

Metropolitan congestion is not merely a problem that effects individual mobility but one that adversely impacts real estate values, air quality, energy consumption, economic development, and international trade. In spite of its broad impacts, metropolitan congestion will be largely addressed under a common and complicating constraint: the 21st century's freight and passenger services to metropolitan America will move on corridors that exist today.

At the same time that debilitating gridlock reduces the effectiveness of our highways, our airports, and our economic centers, we have a passenger and freight railroad system that is, in many respects, severely underutilized. Moreover, our private railroads represent a significant resource with untapped mobility potential that can be utilized without large public investment.

The nation has been slow to respond to the needs of the environment and have relied heavily (perhaps too heavily in many corridors) on highways and rubber tire vehicles for intercity travel. The expanded use of our often sparsely used railroad system should play an increasingly important part in an overall approach to transportation policy. Therefore, major opportunities exist for a rejuvenated private railroad industry. Well targeted public investment, in concert with private capital, can create complementary intermodal facilities that capture the highest and best use of multimodal services in major corridors.

OUR PRIVATE RAILROADS REPRESENT A SIGNIFICANT RESOURCE OF UNTAPPED MOBILITY POTENTIAL.

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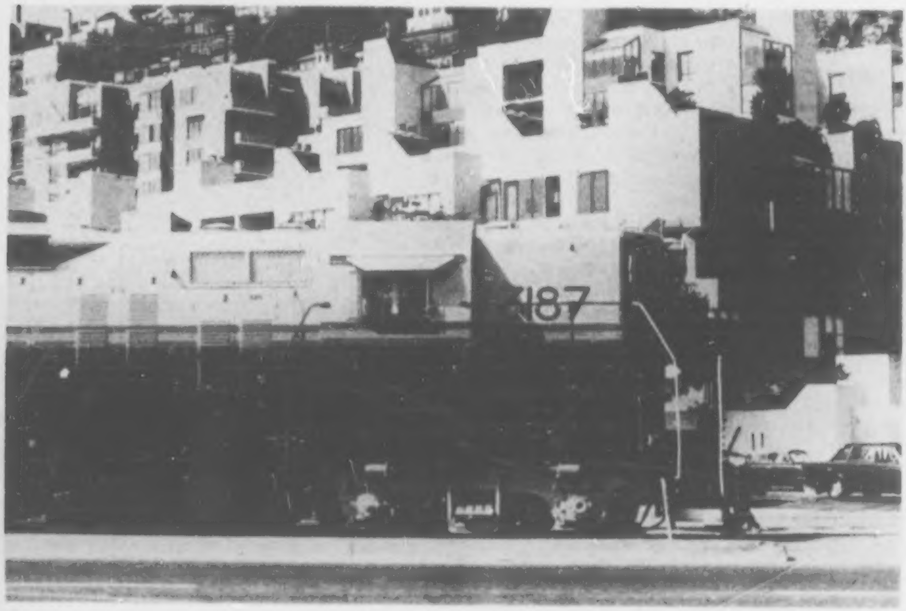

Among the improvements needed to stimulate greater railroad utility are changes to a tax structure that now discourages both public-private and additional investment. Public policy should preserve established private infrastructure (pipelines as well as railroads) by encouraging additional value capture opportunities and by favoring intermodal connectivity that helps bring these services more into the mainstream. Where passenger rail service cannot be solely supported by farebox revenues, revenue streams produced by associated joint development can help produce a profitable enterprise.

HIGH SPEED RAIL

High speed rail (HSR) technology offers unique opportunities to provide significant gains in travel efficiency and productivity, with relatively low energy and land need impacts. HSR by offering frequent, swift, and dependable service, can divert travellers from congested highways and airports. Northeast Corridor operations show that HSR can compete favorably with jet aircraft in high density, short haul markets. Such competition allows individual modes or combinations of modes to find their most efficient niche.

GOVERNMENT POLICIES SHOULD ENCOURAGE PRIVATE DEVELOPMENT OF HIGH SPEED RAIL

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Federal and state governments should support and encourage the development by private interests of state-of-the-art high speed intercity rail passenger service in select high density travel corridors. When properly sited, such high speed rail systems may generate sufficient passenger and value capture revenues to recover capital and meet operating cost needs.

Therefore, to encourage the development of high speed rail, private-public partnerships should be encouraged. Such partnerships can be made easier through public authority to authorize competitive franchising or concession arrangements.

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RECOMMENDATIONS TO CONGRESS

1. Review and change the existing tax structure where necessary to encourage private investment in passenger and freight rail systems.
2. Encourage use of federal and state ISTEA funds to support capital intensive rail investment that will relieve congestion on major intercity corridors.
3. Permit states access to rail corridors under franchise or concession agreements (which may be subject to the exclusive rights of AMTRAK) when that state has an economically viable alternative to AMTRAK service in that corridor and and the viability of its national railway network is not threatened.

SPECIAL-INTEREST PROJECTS

It is apparent that special interest or so called "demonstration projects" are the result of two important Congressionally recognized needs. First, the larger and more important demonstration projects often address gaps in national policy that have developed during the past two decades. Even as the interstate program was taking its course, it became apparent that numerous emerging transportation problems of national and local concern such as interstate connections to new growth areas and intermodal connections to air and water ports were not being adequately addressed. In response, Congress often used its demonstration project authority as a means of solving many serious oversights. Use of demonstration projects to solve future unanticipated problems would become less necessary if Congress broadens the federal system concept as outlined in our Highway Program Structure (See page 5). For example, under the California structure, interstate connectors to new growth areas and intermodal projects such as those providing access to air and water ports will be more readily addressed as part of the HSNS.

Secondly, demonstration projects also are used to address local priorities which have been unable to compete favorably with other national and statewide priorities. As in the case of intermodal projects, local priority projects will compete better under the recommended new highway program structure if adopted by Congress.

To insure their effectiveness, special interest projects should meet certain funding and programmatic criteria before receiving authorizations and appropriations from Congress. These criteria require a determination that:

- The project ranks among the highest priorities set by local jurisdictions;
- it is a high priority among statewide transportation projects; and
- state/local agencies are willing to substantially share in the cost of the project.

A suggested federal contribution in the range of 25% to 50% would require 75% to 50% of the project costs to be borne by those most benefited by the project. The level of cost sharing should be based on a determination of the relative benefits and programmatic interest of the governments involved.

Finally, special interest projects should be funded outside a state's current obligational authority so as not to adversely impact state/local priority driven program continuity.

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SPECIAL INTEREST PROJECTS SHOULD MEET FUNDING AND PROGRAM CRITERIA

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RECOMMENDATIONS TO CONGRESS

1. Congressionally sponsored demonstration projects be selected from projects considered high priorities of the state and local governments.
2. Such demonstration projects require that a substantial but reasonable share of the costs be borne by the state and local governments.
3. Demonstration projects be funded outside of minimum allocation and obligational authority levels.

Today it is axiomatic that transportation planning must be linked with land use, air quality, economic competitiveness and related sub-issues. Yet most current transportation planning processes were established when the primary objective was to spend a large single source of revenue on interstate highways linking major cities.

A BALANCED SYSTEMS PLANNING APPROACH IS NEEDED.

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The time has come to look beyond the single objective investment strategies of the past and make transportation investments that fully consider public priorities and that provide the greatest multiple benefits. A balanced systems planning approach recognizes the advantages provided by each mode, the benefits to be derived from intermodal linkages, and the appropriate application of new technology. Transportation investment decisions and the products of transportation planning must be viewed directly as tools to increase economic growth, improve air quality, and conserve energy resources, as well as improve mobility.

NATIONAL PLANNING

NATIONAL POLICIES AND PLANNING REQUIREMENTS SHOULD BE MUTUALLY REINFORCING.

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At the national level, planning should focus directly on how well transportation investments support achievement of major national goals. At the state and local level, direct attention must be paid to how those investments serve the unique and varied circumstances, goals, and priorities of local communities and regions. New national policies and programs must emphasize development of a more strategic view of what must be accomplished at all government levels,[18] and provide a framework for measuring progress of the program partners.

A national transportation policy should set the direction and encourage both strategic and coordinated planning. Congress can set the leadership example by ensuring that frequently conflicting national policies and planning requirements are mutually reinforcing. National transportation policy should be administered in coordination with other federal agencies such as the Departments of Housing and Urban Development (HUD), Health and Human Services, Labor, Energy and Environmental Protection Agency (EPA).

STATE AND LOCAL PLANNING

The mobility problems facing metropolitan America today cannot be solved by any single solution. They must be met by a combination of capital and operating strategies where the environment and travel demands of each regional area are matched by a supply of service that is feasible in those circumstances. What works in urban Los Angeles, may not work in Petaluma, CA, New York City or in Bangor, Maine. The planning for development of our transportation systems must consider issues of system integration and regional impact, as well as local needs and plans.

There are categorical proscriptions in current federal law that can interfere with funding the highest priority transportation projects. They impose arbitrary restrictions on how funds can be used, what transportation mode they can be spent on, and the rigid geographic distribution of funds. As a result, each element of the system competes with all others, constituencies become entrenched around their special interest and the intermodal integration of systems, so essential to the overall functioning of the transportation network, does not occur.

Need for Corridor/Subregional Approach

Currently, transportation decision making is made by numerous entities including the state, cities, counties, transit districts, transportation commissions, special transportation authorities, regional transportation planning agencies, air pollution control districts, and land use regulators. Each level of government has something the others need for the success of their own goals. While each of these diverse agencies has an unique focus they also share a common (if not always recognized) interest at the regional or subregional level.

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[18] *Recognize, for example, that congestion relief within HSNS corridors whether attained through investment in traditionally federal or traditionally local systems, both potentially can serve the essential national interests.*

Transportation solutions must originate and be implemented where the problems occur. The federal, state and local governments must work together at the regional and subregional levels to develop, agree upon, and carry out specific solutions. In the interest of producing the best solution to a particular problem, the state, the regions, and the affected cities and counties may find that the corridor/subregional transportation planning approach will:

- Better link land use, air quality, transportation planning and programming, and implementation across jurisdictional boundaries.
- Promote intermodalism and better target limited resources by ensuring that the most cost effective transportation solutions are identified, given appropriate priority, and funded.
- Begin to integrate state highways, county roads, city streets, and transit facilities into a single coordinated and well tuned system.
- Promote direct and vigorous participation of all corridor jurisdictions in the planning, programming, and implementation process.

Corridor/Subregional Approach Defined

The "corridor/subregional approach" is an extension of the current "3C" transportation planning efforts and is designed to address transportation problems and prioritize and fund their solutions. The corridor/subregional approach addresses transportation problems in both rural and urban systems on an intermodal and multijurisdictional basis.

Simply put, all responsible regional decision makers would be brought together directly through states auspices or through MPOs. Together they would develop an integrated program of improvements (including all modes/strategies), pool funds to pay for the program and then jointly implement it. To accomplish this, there are four elements in the existing planning, programming, and implementation process that are either missing or that need to be strengthened:

Binding commitment. There must be commitment on the part of each agency to seek common solutions in the corridor study effort, to develop a workable plan of financing, and to follow through in implementing their respective portions of the integrated program.

TRANSPORTATION SOLUTIONS MUST ORIGINATE AND BE IMPLEMENTED WHERE THE PROBLEMS OCCUR.

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An **integrated program** of intermodal improvements to increase capacity and to reduce congestion. This means combining demand management measures, transit improvements, and new capacity whether on state or local facilities into one subregional network package. Without an integrated and coordinated system of good arterial networks, transit systems, traffic operations centers, and demand management, additional freeway development will be of little benefit in addressing urban transportation problems.

CORRIDOR/ SUBREGIONAL PLANNING IS AN EXTENSION OF THE EXISTING "3C" PLANNING PROCESS

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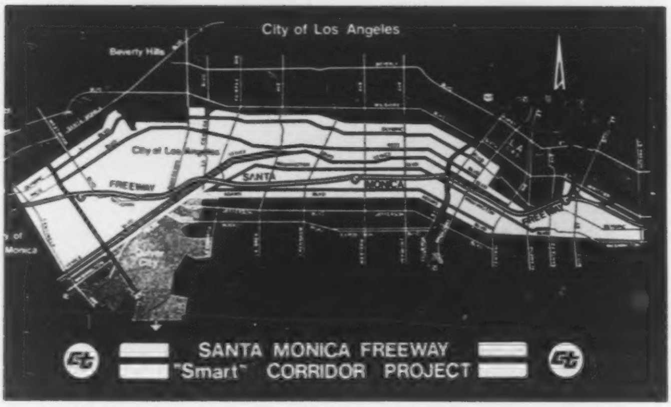
A **flexible pool of money** to fund the implementation of the plans and to ensure that the funding is applied to the plan's integrated program and its agreed upon priorities. This would be accomplished through the authorization of the FAST-Highways and FAST-Transit Programs recommended on pages 6 and 13 and the HSNS metropolitan corridor process described on pages 5 and 12.

A **coordinating mechanism** developed by states and localities — or use of the existing metropolitan planning organizations.

How The Process Works

The corridor/subregional approach is a method to address the subregion's problems as a whole. The elected officials and civic leaders must be committed to resolving transportation problems without preference for a specific mode, facility or agency. The operating premise must be that each player benefits as the group succeeds.



The state, in cooperation with its local and regional agencies, would develop guidelines for the conduct of corridor studies. These guidelines would include a method for prioritizing among studies to be done, identification of funding, targeting the modes to be studied, exploration of land use, population, and air quality considerations, and a priority setting system for projects within corridors.

CORRIDOR PLANS MUST BE CONSISTENT WITH AND INCORPORATED INTO ALL STATE, REGIONAL AND LOCAL PLANS.

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Where appropriate, the Metropolitan Planning Organization (MPO) would be responsible for the overall process of identification of corridors, ensuring public involvement, scheduling of studies in the annual overall work plan, and conducting or having conducted the corridor studies. The State may be responsible for this process wherever a corridor is not being studied by the MPO (for example, a rural corridor). Upon completion of the studies and following a public hearing, the corridor study is amended into the Regional Transportation Plan (RTP), and included in the Regional and State Transportation Improvement Programs (RTIP and STIP). Corridor plans must be consistent with and incorporated into all state, regional, and local plans or a resolution of overriding considerations must be adopted. Strict time limits would be set for completion of these steps. A conflict resolution process such as binding arbitration and expedited judicial reviews would be used to break logjams in decision-making.

As the planning of integrated improvements and strategies (e.g. transit, arterial network expansion, freeway operational improvements, demand management ordinances, etc.) proceeds, consideration of funds available in the corridor and funding responsibility for each improvement and strategy would be determined. The result would be a final plan that specifically delineates the integrated program of improvements and strategies and describes how the individual program elements would be funded. Subsequent project approvals and funding would take place in accordance with the priorities established in the corridor plan as amended into the RTP.

Corridor/Subregional transportation planning represents a major shift in transportation planning and funding. It takes a more regionalized and localized approach to solving urban and rural transportation problems — addressing them within a more intermodal and multi-jurisdictional framework. It focuses authority and responsibility at the regional and local levels and begins with comprehensive, detailed, and integrated corridor studies. Through these studies, priorities are set from the full range of highway construction, public transportation, traffic management, and other available approaches.

FEDERAL FUNDING FOR PLANNING

Currently, separate planning money is available for transit and highway planning through UMTA and FHWA. Little or no federal funding is provided for federal air quality, energy, or aviation (groundside) planning requirements. The federal planning money for transit and highway facilities must be expended within urbanized areas and for the specific mode for which it was intended for. This hinders a state or local agency's ability to take a balanced approach to its transportation planning or its ability to look beyond its current physical boundaries.

Under the corridor/subregional framework, federal planning monies will be effectively distributed without regard to modal definition. Generic transportation planning money will encourage the development of plans which encourage intermodal solutions and link transportation with land use, air quality, economic competitiveness, and related sub-issues.

ACCOUNTABILITY

To ensure that the federal planning funds are being used to address national goals, Congress can require a biennial evaluation report to be submitted from each state to the US DOT. The report would be used to certify the adequacy of the state and local planning and programming process. The US DOT would then be responsible for consolidating the states' reports and submitting them to Congress.

The planning process evaluation report would cover: responsibilities and roles of the state and local planning agencies; progress of planning efforts; national policies, laws or regulations inhibiting the states or local jurisdictions from meeting their transportation goals; significant issues identified through the planning process; innovative planning approaches; and, findings and recommendations.

This approach ensures Congressional oversight and recognizes that the specifics of how to conduct its planning and programming should be left largely to each state and its local agencies to decide upon.

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RECOMMENDATIONS TO CONGRESS

1. Establish an overall national strategic direction.
2. Fund intermodal, continuous, coordinated, and cooperative planning at the state and local level which advances the strategies chosen.
3. Mandate that the US DOT Secretary establish broad, flexible federal guidelines — and that the guidelines require each state and its local entities to create a planning process appropriate to each state's respective physical, political and related circumstances.[19]
4. Through the US DOT Secretary, require that a state certify that its program of projects is based on a comprehensive multimodal transportation planning process carried on cooperatively by states and local agencies.
5. Hold each state accountable for the results of their transportation planning and programming by requiring each state to submit a biennial evaluation report.

FEDERAL PLANNING MONIES WOULD BE DISTRIBUTED WITHOUT REGARD TO MODAL CONSTRAINTS.

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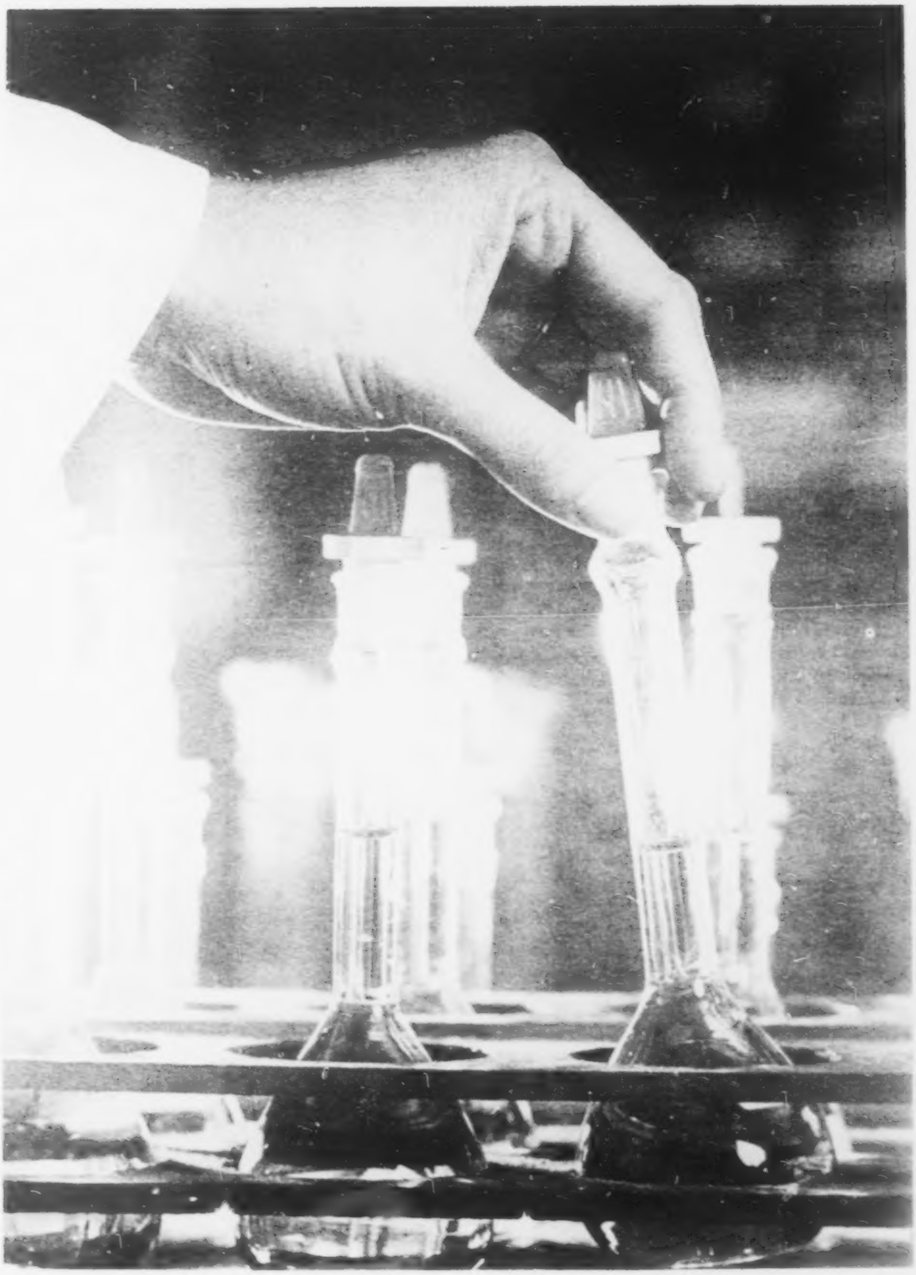
[19] *In doing so, Congress should carefully avoid mandating a specific process as many states have created effective approaches that perform well in their respective political, economic, and geographic environments. States without such a process should be provided a reasonable amount of time in which to develop one.*



RESEARCH AND DEVELOPMENT

The Nation must invest in ideas and technology, as well as in education and infrastructure, to maintain its position in the growing world marketplace. To cease losing ground technologically, the United States public sector must begin to exercise the same level of leadership that is provided by the governments of competing nations. This will require direct federal support for civilian research and development, as well as new incentives for renewed private sector investments.

USDOT should act as a catalyst, facilitator, and entrepreneur in helping to develop and direct a national R&D program. Following are suggestions of actions that can be taken at the federal level directly or in partnership with other levels of government and the private sector:

- Establish a national transportation technology research and development program to be coordinated by a nationally recognized blue ribbon panel. The panel would target promising experimental technology and supporting special interest projects which accelerate technology transfer. The highest priority would be given to methods and technology with the potential to maximize existing capacity, create more efficient system links, and otherwise provide the greatest levels of congestion relief.
    - — Standardization of new technologies on a national and international basis to minimize system incompatibilities should be a major part of the new federal role.
    - — An expanded research agenda would include high-speed intercity ground transportation, goods movement, freight flow, systems management and methods for reducing the cost of new facilities. Any federal research initiative would continue to have an economic component which identifies the link between mobility enhancement and economic growth.
- Take a lead role in identifying and applying new technologies for massive transportation projects which affect multiple jurisdictions or require a centralized funding source. Provide extensive coordination among players and work with state and local entities.
- Strengthen the state/local and private sector commitment to research and development. Support research forums (consisting of regional university, public entity and private sector consortia) and help to develop (or strengthen) regional planning and operational entities that provide a network for intermodal systems approach to mobility.
- Increase the involvement of the private sector by allowing tax incentives, improve tort protection, and antitrust waivers for cooperative efforts. Make provision to grant proprietary interests in applied technology.

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THE US DOT SHOULD FACILITATE AN AGGRESSIVE INTERMODAL R&D PROGRAM.

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RECOMMENDATIONS TO CONGRESS

1. Establish a [illegible] of intermodal research and development [illegible]
2. [illegible]
3. Authorize the Secretary of Transportation to [illegible]
4. [illegible]

AIR QUALITY AND ENERGY

While many environmental problems affect specific geographic areas, air quality and energy have regional, state, national and international environmental and economic implications. International efforts to deal with global environmental issues such as ozone depletion, energy conservation, and greenhouse warming, have resulted in regulations and agreements that impact international transportation. As these concerns are addressed, the US should anticipate, and participate fully in such international efforts to ensure that US interests are served.

AIR QUALITY SHOULD BE A PERFORMANCE OBJECTIVE FOR THE ENTIRE TRANSPORTATION PROGRAM.

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At the state and local level, many transportation and land use decisions have been insensitive to air quality considerations. Despite the creation of air quality programs and air quality enforcement districts, there has been a continuing degradation of our air quality in our major metropolitan areas. Currently, 55% of the nation's population lives in federally designated nonattainment areas. In some larger urban states, this percentage can be significantly greater (e.g., In California 85% of the population now lives in non-attainment areas).

We believe that the nation would benefit from a program that would provide incentives or rewards for addressing air quality objectives at the front end of the transportation and land use planning process. Such a process would provide the flexibility needed at the state and metropolitan level to select and fund projects that best address each area's unique problems.[20] States or local jurisdictions that take air quality considerations into account and implement corridor approved projects beneficial to air quality concerns could be rewarded, for example, with additional planning funds.

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RECOMMENDATIONS TO CONGRESS

1. Assure that all national transportation, air quality and energy policy is implemented through mutually reinforcing requirements.
2. Include improved air quality and decreased energy use as performance objectives for the HSNS, ISNS, and FAST Highways, Transit programs.
3. Distribute incentive planning funds to states and local agencies addressing air quality problems through a corridor/subregional approach.
4. [illegible] state and local transportation agencies, as appropriate, to develop more detailed recommendations for transportation related air quality programs to the Administration and Congress.

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[20] *See the discussion of the Corridor/Subregional approach to planning on pages 21 to 29.*

INTERMODALISM

Modern intermodalism involves the systematic use of two or more modes in order to maximize the efficiency of the total movement. Intermodal air, sea, and surface systems already are a vital part of current national and international transportation. Nevertheless, our historical patterns of economic growth, private transportation investment and government regulation have favored the establishment of competitive, multi-modal systems rather than connected, cooperative, fully intermodal ones.

Our future ability to extract the maximum efficiency from our existing passenger and freight infrastructure and systems will substantially rest on the strength and quality of the service links between the modes and how those links facilitate the efficient substitution of one mode for another. Policies which do not consider new intermodal mixes risk giving up the benefits of their joint efficiencies.

We are at a crossroad in the development of our nation's future transportation programs. Our leaders must decide whether or not we will

WE MUST ENCOURAGE THE GROWTH OF INTERMODAL COOPERATIVE, AND INTERDEPENDENT MODAL SYSTEMS.

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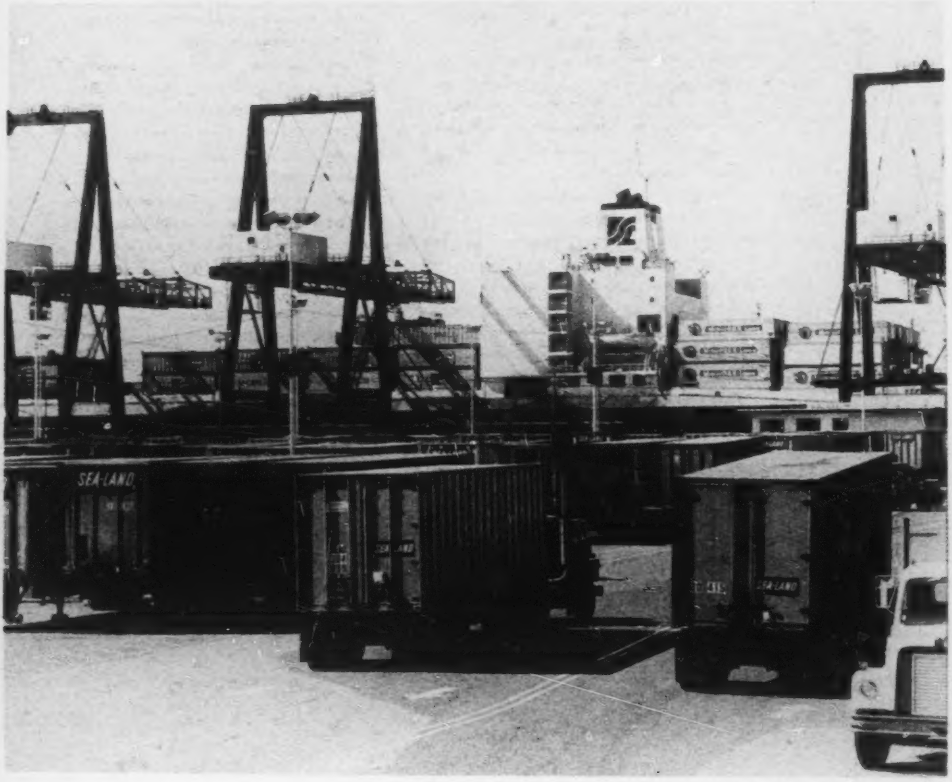

continue to emphasize independent, competitive, multimodal development or shift emphasis to encourage growth of intermodal, cooperative and interdependent systems. In doing so, it should be recognized that there are strong reasons for establishing future programs with greater intermodal emphasis:

WE MUST DECIDE IF WE WILL CONTINUE TO EMPHASIZE INDEPENDENT, COMPETITIVE MODAL DEVELOPMENT OR SHIFT EMPHASIS TO INTERMODAL, COOPERATIVE SYSTEMS.

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- Intermodal systems already have become a large part of our domestic transportation network; they are now too large and too important not to receive direct attention in future program planning and in allocating public resources.
- We cannot afford to meet the maintenance and development costs of our current independent, modal scheme — our systems are both mature and unbalanced — we need to fully use all existing capacity through greater intermodal linkages and synergies before we commit large sums to overburdened single system solutions.
- Our future ability to effectively conduct international trade substantially depends on the quality of our aviation and waterborne intermodal systems — including the ease of access to transfer facilities and efficient connectivity between the modes.

Our economic position is hurt whenever major system elements slip through the cracks of a multimodal single system framework as is the case with orphan airport and waterport access improvements. If the nation is to maximize the efficiencies possible from its transportation lifelines, it can ill afford to scatter its resources simply because no direct program will cover the need. It cannot continue with fragmented institutional control of public transportation services. Clearly, national resources will be wasted if we make decisions about increasing productivity thorough single system/modal improvements without first considering gap plugging, intermodal alternatives.

General Development Area — There are several system development areas where public sector involvement can help improve the efficiency of the goods movement system and substantially reduce the level of through truck traffic on congested urban highways. These include:

- Helping to improve rail access to key regional transportation facilities and interchange points including ports, goods distribution centers and inland containers stations.
- Assisting in the elimination of right of way clearance restrictions that limit the widespread availability of doublestack rail service.
- Resolving conflicts which limit steamship/rail/trucking connectivity. For example, both steamship lines and railroad carriers can legally handle containers that exceed highway truck size and weight laws. This creates problems ranging from small trucking firms bearing the negative economic impact of fines for overweight operations to regional and competitive issues where overweight laws are unequally applied.

Landside access to airport and waterport facilities is as critical to trucks and railroads as dredged channels and adequate airside systems are to ocean and air line-haul carriers. Yet little focused, concerted attention is given to these access issues by government programs. Other water/truck and air/truck issues which are related to improved systems efficiency include reduction or elimination of highway deficiencies which prohibit or limit 102" truck access to airports and support for the testing and implementation of various technologies like Automated Vehicle Identification and Location (AVI/AVL) systems—which through more direct routing can reduce excess pickup and delivery vehicle miles traveled and speed movements through intermodal facilities.

Urban Transportation — Urban transportation officials must come to grips with general congestion, access to jobs and neighborhoods and related environmental/social problems. In doing so, new collection and distribution systems are being used to maximize existing capacity and increase the advantages to be gained from new investments. Satellite transportation terminals, high occupancy vehicle lanes, intersystem links between bus, subway, rail and ferry systems are all part of the intermodal options that can be employed.

The smoothness of a journey to work or an intercity trip often depends on how well local transportation planners and system operators are working together to arrange convenient interconnections from these diverse options. In most metropolitan areas, umbrella public transit agencies provide modally independent services. These diverse operations are subject to local institutional and political imperatives and shaped by a fragmented, single system/single mode policies and programs.

Regional interagency planning efforts are required so that the systematic interrelationships of public and private transportation systems can be comprehended and effectively responded to. Each region contains a few key transportation corridors within which travel shifts and growth takes place. Corridor based interagency management of intermodal transportation options should be recognized as essential to meet future transportation needs.[21] Likewise, addressing broad issues relating to public institutional arrangements that straitjacket intermodal service development should be a major national priority.

Airport Access — Intermodal transfers at airports can involve a broad variety of modes: autos, buses, trains, vans, taxis, limousine, helicopters, ferries and trucks of all sizes and shapes. Over half the major airports in the country have serious access problems. The situation is exacerbated by institutional inattention and indirect funding. Airside systems are receiving increasing funding to improve safety and capacity — but support for landside systems, which have only limited funding sources, have not kept pace.

The funding gap for airport access is a clear example of the shortcomings with single mode, single systems focus. No current aviation program — the Airport Improvement Program in particular — will pay for airport access planning or for off-airport access improvements for physical roadway or transit systems improvements. This funding gap is not taken up anywhere else. The support gap needs to be resolved for airports to reach their maximum capacities as efficient intermodal facilities — a critical requirement for both regional and national economic development.

Government at all levels must address major needs that suffer inattention as the result of diffuse and diverse funding sources, especially access to airports and waterports. These access issues should not be ignored simply because they are on the fringes of responsibility for the various agencies.

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RECOMMENDATIONS TO CONGRESS

1. Address intermodal access by requiring that access to ports, airports and related facilities be a factor in the designation of facilities on the Highway System of National Significance.
2. Specify that a given percentage of trust funds for highways, transit and aviation be available, at the discretion of the state and local entities, for joint funding of intermodal transportation facilities.
3. For purposes of reauthorizing a national transportation program, create a Congressional process that encourages inter-committee cooperation and leads to a connected, intermodal transportation program.

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[21] *See Planning recommendations, page 26.*

PROGRAM EFFICIENCIES

The states have become highly sophisticated in engineering and regulatory compliance since the advent of the Interstate program in 1956. The mission of the Federal Highway Administration to foster professional development in state transportation departments has been successfully accomplished. National design standards and engineering procedures for safety, bridge, and pavement design, traffic capacity, hydraulics, and the many other engineering and compliance aspects of highway design are systematically adopted by states on an ongoing basis and integrated into state policy and procedures.

Due to the continuing expansion of regulatory controls, project costs are significantly escalated by unnecessary federal involvement and excessive requirements for documentation of state decisions and procedures. The efficiency of project development and construction is further impaired by the redundancy of certain US DOT regulations that deal with assuring compliance with the regulations of other agencies. As a consequence of these conditions, specific areas of agency regulations should undergo Congressional review.

California recognizes the essential role played by the US DOT and urges it remain responsible for ensuring the effective use of federal transportation resources. Nevertheless, we believe that many of the controls and procedures developed under existing programs can be modified to reduce program and administrative costs.

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MANY EXISTING PROGRAM CONTROLS AND REQUIREMENTS COULD BE MODIFIED TO REDUCE OVERHEAD COSTS.

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RECOMMENDATIONS TO CONGRESS

1. Conduct hearings to specifically address issues related to US DOT oversight effectiveness [illegible] duties [illegible] and regulations, including those [illegible].
2. As indicated [illegible] the sections [illegible] changes that [illegible] improve program and administrative efficiencies.

TRANSPORTATION SAFETY

Federal, state and local highway safety programs and resources have effectively reduced the national fatality rate over the past twenty years from 5.2 deaths per 100 million miles of travel to 2.4 deaths per 100 million miles of travel. It is projected that by the year 2000, there will be 80,000 motor vehicle related fatalities a year, compared to the current level of 46,000 a year. The fatality rate will have to be reduced to 1.4 deaths per 100 million miles of travel just to maintain a level of 46,000 deaths a year. New, innovative transportation safety programs will be needed to prevent an unacceptable level of fatalities in the future.

Safety considerations should be an integral part of every aspect of the new national transportation program, including efforts to promote safety improvements in vehicles and roadway operations. Driver safety must be enhanced through education and enforcement of laws such as the minimum drinking age, driving under the influence of alcohol and drugs, seat belt use, and commercial drivers licensing. Greater attention is also needed on programs to reduce the number of accidents involving hazardous materials transport.

Transportation safety can best be addressed by driver-oriented programs and roadway-oriented programs. Both the proposed HSNS and FAST-Highways programs fulfill the need for a roadway-oriented program by emphasizing safety as one of several Congressionally established objectives and performance measurements for the highway system.

To address the driver-oriented programs, the current federal highway safety programs (including but not limited to: 23 USC Sections 402, 408, 410, Motor Carrier Safety Program, and Commercial Drivers' License Program) should be restructured into a driver performance grant program. This would not only reduce the need for separate program authorizations, but would minimize program application requirements and red tape. Increased program flexibility and coordination between commercial motor vehicle and non-commercial motor vehicle highway safety would result.

Funding for the driver performance grant program should be set at a rate indexed to the number of drivers or VMT and funded from the Highway Trust Fund. The funds should be administered by the Governor's Highway Safety Representative who would continue to work cooperatively with local governments and private organizations to implement comprehensive safety programs at the state and sub-state level.

CURRENT DRIVER SAFETY PROGRAMS SHOULD BE CONSOLIDATED INTO A SINGLE DRIVER GRANT PROGRAM.

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Any such program should include incentives (in the driver performance grant program) for occupant protection, drunk driving enforcement, speed enforcement, and for establishment of uniform accident and fatality data collection and analysis. The Congress should reward states that strengthen their enforcement programs or take steps to make their data collection standards conform to the national model.

ACCOUNTABILITY

Each state must be accountable to Congress for the results of expenditures of funds for the driver performance grant program. Therefore, every three years, each state's traffic safety office would be required to prepare and submit a safety report to the US DOT. The US DOT would be required to consolidate all fifty reports and transmit summary findings and recommendations to Congress.

Congress, for its part, would establish broad national traffic safety goals and objectives. The US DOT would be responsible for developing in conjunction with states, local jurisdictions and private sector interests, the specific performance thresholds beyond which a state's construction funds would be at risk. These performance thresholds should be defined in terms of fatalities and personal injuries. In addition, Congress should request Transportation Research Board

(TRB), in conjunction with the National Highway Transportation Safety Agency (NHTSA), to develop a recommended uniform data collection and reporting system.

Under this concept, a state's fatal accident rate would be projected based on historical state and national trends. A minimum of five (5) years worth of historical data would be used to develop accident trends. Variability would be accounted for by establishing a range around the projected accident rate, ie., a performance threshold. Differences among states would be accommodated by establishing acceptable accident rates based on individual state's accident trends.

After accounting for statistical variability, if a particular state's performance threshold is exceeded, then federal highway construction funds could be transferred to non-construction safety programs in that state. The amount of transferred funds would depend on the size of the state. The NHTSA would be available for technical assistance should a state decide to request their help in improving highway safety.

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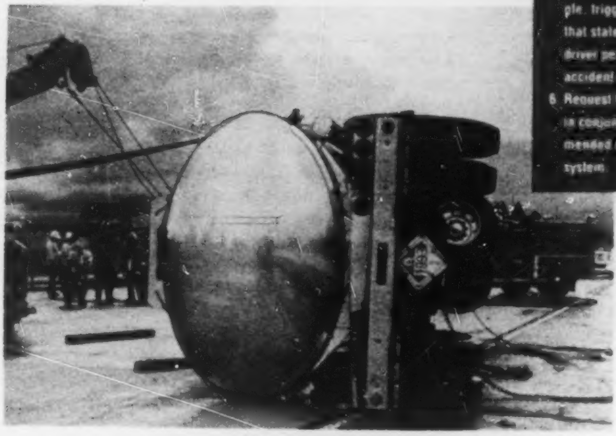
RECOMMENDATIONS TO CONGRESS

1. Consolidate the current federal highway safety programs into a single driver performance grant program which would reduce the need for separate program authorizations, minimize program application requirements and red tape, and increase program flexibility.
2. Use incentive funding within the driver performance grant program to reward states for strengthening their enforcement programs and for taking steps to make their data collection process conform to the national model.
3. Index and annually adjust funding for the driver performance grant program based on growth in the number of drivers and/or in VMT.
4. Establish national traffic safety goals and objectives and mandate that the US DOT work in cooperation with states, local jurisdictions and private sector interest, to develop performance thresholds for each state.
5. Require each state to report their state's accident rate versus its performance threshold to the US DOT. A state's inability to remain within the performance thresholds could as an example, trigger a transfer of a specified amount of that state's highway construction funding to the driver performance grant program to encourage accident reduction.
6. Request that the Transportation Research Board, in conjunction with NHTSA, develop a recommended uniform data collection and reporting system.



FEDERAL FUNDING

One of the keystones of the federal transportation program has been a stable funding source provided largely by highway users. Since the creation of the trust fund, user fees have financed the construction of this nation's transportation network. In recent years the stability of the trust found has been brought into question.

California believes that a restructured transportation program must be complemented by financing policy that maximizes the effectiveness of current highway trust fund receipts by dedicating user fee revenues solely to transportation needs and making them available to the states at full authorized levels. California's recommendations for complementary financial policies follows:

Driven by deficit reduction concerns, various interest groups have sought to divert transportation user fees to non-transportation related uses. For the same reason, transportation funding capacities have been artificially capped by the Administration. The decrease in transportation funding available through normal channels has placed increased pressure on Congress to earmark funds for special projects. Special tax exemptions for alternative fuels, and even fuel tax evasion further cut the availability of funds. Finally, and most oppressive, is the threat of new federal fuel taxes for general federal deficit reduction.

STEPS SHOULD BE TAKEN TO REDUCE THE IMPACT OF THE ALTERNATIVE FUELS EXEMPTION.

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Meanwhile, the existing transportation tax structure and rates are producing revenue inadequate to support an expanded national transportation program at all levels of government. These conditions collectively have reduced the overall effectiveness of the pay-as-you-go tax structure. Steps are needed to return lost revenues to the Highway Trust Fund and Mass Transit Account and to thereby make available all intended revenues for their congressionally unfunded transportation purposes.

A SUBSTITUTE FOR ALTERNATIVE FUELS MAY BE A NEW HEATED CATALYTIC CONVERTER.

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Full application of the transportation tax structure can provide adequate funding for an increased transportation program through at least federal fiscal year 1993. Actions which would strengthen the integrity and effectiveness of the highway trust fund include:

REASSESSMENT OF THE ALTERNATIVE FUELS EXEMPTION

The alternative fuels exemption annually diverts a minimum of $600 million from the Highway Trust Fund. This subsidy, intended to encourage the production and use of cleaner fuels, raises questions about the continuation of a user fee concept for highway transportation funded through the National Highway Trust Fund.

Among the ways in which these differing interests of promoting the use of alternative fuels and continuing the user fee concept can be reconciled are:

1. Providing the subsidy through the general fund;
2. Requiring that alternative fuel be taxed at a reduced level, or
3. Combining a partial general fund subsidy with a reduced user tax.

If the present alternative fuels exemption is retained and the use of alternative fuels is mandated to meet air quality objectives, the flow of gasoline excise taxes into the current federal aid financing structure will decrease.

New technology may obviate the need for alternative fuel subsidies. Research by the California Air Resources Board[22] shows a new electric-heated catalytic converter cuts pollutants from gasoline-powered automobiles by as much as 90% in tests and has the potential to be as effective in reducing all pollution as currently used alternative fuels.

If increases in alternative fuels use are mandated for clean air purposes, the original justification for exemptions for alternative fuels will no longer be valid. Mandated alternative fuels should be fully taxed. Congress should avoid any temptation to eliminate the alternative fuels exemption and use the revenues for deficit reduction purposes.

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[22] *As reported in Technical Support Document #xx, California Air Resources Board, May 1990.*

ACCELERATION OF EFFORTS TO COLLECT ALL MOTOR FUEL TAXES DUE

Nationally, motor fuel tax evasion, especially with respect to diesel fuel taxes, is an ongoing problem. Although Congress now mandates collection of diesel fuel taxes at the wholesale level, corporate scams and abuse by multiuse consumers still abound. Specific areas of concern over misuse/evasion include use of oil sold for heating purposes being used as a motor fuel and fuel sold for off-road purposes being used on public roadways.

Congress needs to adopt more stringent penalties for motor fuel tax evasion. Congress must ensure that motor fuel taxes paid by highway users are accurately reflected in revenues deposited in the Highway Trust Fund. Additionally, Congress should direct the Transportation Research Board, working through the Secretary of Transportation (in cooperation with the Internal Revenue Service), to explore and report on ways to help assure that diesel fuels sold for non-highway purposes are easily identified, both prior to and after usage.

DEDICATION OF ALL FUEL TAX FOR TRANSPORTATION PURPOSES ONLY

The Highway Trust Fund balance should not be used as an offsetting credit that masks the true level of the federal deficit. We urge the gradual spend down of trust fund balances for transportation purposes only. In addition, we urge that the trust fund be removed form the calculation of Gramm-Rudmann-Hollings targets. The recent proposal to take action with the Social Security trust fund, argues compellingly for similar treatment for the highway, transit, and aviation trust funds.

Recent analyses estimate the 20 year costs of adequately maintaining and augmenting the nation's transportation infrastructure and services to be in the heady range of $1-3 trillion. The federal government should be a steady, reliable and significant partner in helping to meet those needs. However, even if federal contributions are substantially increased, state, local, and private sector investments will be required to rise so as to better meet total needs. However, it is likely that the proportion of transportation needs funded at the state and local level will continue to grow. This shift of financial responsibility further argues for greater program discretion at the state and local levels.

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RECOMMENDATIONS TO CONGRESS

1. Make permanent the Highway Trust Fund and gradually eliminate obligation limits by $1.5 billion per year.
2. Take decisive action to reduce the extent to which tax evasion is "stealing" from the Highway Trust Fund.
3. Mandate the use of alternative fuels in air quality non-attainment areas, and discontinue the special fuels tax exemption or shift subsidies to the general fund.
4. Direct the Transportation Research Board to study and to report to the Congress on ways to better ensure that diesel fuel sold for non-highway purposes is not used on the nation's roadways.

THE EFFECTIVENESS OF CURRENT HIGHWAY TRUST FUND RECEIPTS SHOULD BE MAXIMIZED BY DEDICATING USER FEES FOR TRANSPORTATION SOLELY.

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TRANSITION FROM THE OLD TO THE NEW

Heading into the 1990s, there will be a variety of important matters to consider in the transition from the current still incomplete, federal highway program and its many categories to a new, more relevant, and streamlined federal program. Special cooperative federal and state study teams should be organized to define specific and workable solutions to the major transition issues.

TRANSITION ISSUES

A FINANCIAL PLAN FOR COMPLETION OF THE INTERSTATE IS NEEDED

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Establishing a financial plan for the prompt funding and completion of the remaining Interstate Highway and Interstate substitution commitments should be a key feature of the transition process. It appears that in addition to authorizations already made, approximately $4 billion in additional funding will be needed to fully finance the projects as defined in the 1991 interstate cost estimate. Congress should approve one final cost estimate to fulfill the long standing commitment to complete the Interstate system including Interstate Substitute Projects. The authorizations and distributions required to meet this commitment should be spread over the life of the next surface transportation assistance act (or over a four year period, which ever is greater), in accordance with a state by state obligation plan coordinated through the US DOT. Transition authorizations should be in addition to a state's normal highway program allocations. Funding for the interstate completion program would come from Trust Fund reserves.

Issues associated with the carryover apportionment balances that states have accumulated, but have been unable to use due to annual obligation limits must be addressed. Past highway reauthorization bills have largely ignored carryover balances — except to determine how much extra revenue is needed to ensure that these carryover balances do not trigger trust fund anti-deficit provisions.

The most simple, direct and effective method for resolving transition issues is to make permanent the Federal Highway Trust Fund, and remove the obligation limits. With a permanent highway trust fund and an end to obligation limits, states would be free to obligate their carryover apportionments as rapidly or as slowly as they chose, and without any further budget restrictions or the need for additional Congressional action.

RECOMMENDATIONS TO CONGRESS

1. Approve one final cost estimate to fulfill the long standing commitment to complete the interstate system (as defined in the 1991 Interstate Cost Estimate) and Interstate Substitute Projects. Spread these authorizations and distributions over the life of the next Surface Transportation Assistance Act (or over a four year period, whichever is greater) in accordance with a state by state obligation plan coordinated through the US DOT.

APPENDIX A: GOALS, OBJECTIVES AND PERFORMANCE MEASURES FOR THE HIGHWAY SYSTEM OF NATIONAL SIGNIFICANCE

I. **GOAL:** Improve national and international commerce.

- **Objective:** Establish major national truck routes that provide ready access to significant economic centers.
  - **Performance Measure:** Targeted increases in annual tonnage carried by the HSNS statewide.
- **Objective:** Improve access to major intermodal facilities.
  - **Performance Measure:** Increases in intermodal volume/decreases in through truck traffic on the HSNS.

II. **GOAL:** Improve the efficiency of the existing urban HSNS segments.

- **Objective:** Increase mobility and reduce delay.
  - **Performance Measures:** Reductions in average time required to travel X miles (e.g., 10 miles); number of person miles traveled; number of lane miles operating above the previous year's Level of Service (LOS); units of energy per passenger mile; etc..

III. **GOAL:** Preserve air quality while maintaining transportation's contribution to the economy.

- **Objective:** Reduce mobile emissions.
  - **Performance Measure:** Reductions in the total annual number of non-attainment days and number of designated carbon monoxide (CO) "hot spots" resulting from mobile emissions in relation to volume of passenger and freight handled in the corridor.

IV. **GOAL:** Preserve the federal investment in the HSNS.

- **Objective:** Maintain the physical integrity of all HSNS facilities.
  - **Performance Measures:** Improvement in the Present Serviceability Rating (PSR) as determined by random samples of the HSNS reviewed through periodic post audits.

V. **GOAL:** Improve the safety of the traveling public on the national highway system.

- **Objective:** Improve HSNS roadway and driver safety.
  - **Performance Measures:** Reductions in the number of fatalities and personal injuries per unit of passenger miles traveled.

VI. **GOAL:** Provide a highway network that meets national defense needs.

- **Objective:** Apply necessary geometrics and adequate load carrying capacity standards (STRAHNET) to provide full access for defense purposes.
  - **Performance Measure:** Increases in the number of lane miles raised to meet STRAHNET geometric and weight requirements.

VII. **GOAL:** Apply uniform national design standards to all facilities in the HSNS.

- **Objective:** Raise all substandard facilities, where possible, to national standards.
  - **Performance Measures:** Increases in the number of lane miles and bridges raised to higher standards.

APPENDIX B: GOALS, OBJECTIVES AND PERFORMANCE MEASURES FOR THE FAST-HIGHWAYS SYSTEM

I. GOAL: Improve intrastate and interregional commerce.

- **Objective:** Establish major regional truck routes for access to economic centers.
  - **Performance Measure:** Reduce the travel time for trucks using the statewide FAST system.
- **Objective:** Improve access to major intermodal facilities.
  - **Performance Measure:** Completion of projects undertaken to improve access to and from intermodal facilities or create new intermodal facilities.

II. GOAL: Improve the efficiency of the existing state and local system.

- **Objective:** Increase mobility and reduce delay.
  - **Performance Measures:** Reductions in average time required to travel X miles (e.g., 10 miles); number of person miles traveled; number of lane miles operating above the previous year's Level of Service (LOS); units of energy per passenger mile; etc..

III. GOAL: Preserve air quality while recognizing transportation's contribution to the economy.

- **Objective:** Reduce mobile emissions.
  - **Performance Measure:** Reductions in the total annual number of non-attainment days and number of designated Carbon Monoxide (CO) "hot spots" resulting from mobile emissions.

IV. GOAL: Preserve the public investment in the state and local highway system.

- **Objective:** Maintain the physical integrity of the FAST facilities.
  - **Performance Measures:** Improvement in the Present Serviceability Rating [PSR] as determined by random samples of the FAST system reviewed through periodic post-audits.

V. GOAL: Improve the safety of the traveling public on the FAST system.

- **Objective:** Improve roadway and driver safety.
  - **Performance Measures:** Reduction in the number of fatalities and personal injuries per unit of vehicle miles traveled.

VI. GOAL: Apply state designated design standards to all facilities in the FAST system.

- **Objective:** Raise all substandard facilities to standards, where possible.
  - **Performance Measures:** Increases in the number of lane miles and bridges per year raised to standards.

	Existing Category	Provide Majo Regional Tru Routes and Access to Ec nomic Cente
LOS ANGELES CITY		
RR Separation	FAU	
Seismic Retrofit	VAR	
SMART Corridor	VAR	
LOS ANGELES CO		
Widen & resurface Inglewood Ave.	FAU	
Reconstruct Valley Blvd.	FAU	
SANTA CLARA CO		
Widen to 6 lanes	FAU	
Comprehensive overlay	FAU	
CONTRA COSTA CO		
Bridge	FAU	
SAN MATEO CO		
Bridge	FAU	
SONOMA CO		
Major rehab	FAU	
SAN BERNARDINO CO		
Ontario airport access	DEMO	
LOS ANGELES CO		
Long Beach port access	DEMO	●

VII. GOAL: Improve road access to rural and urban economic activity centers.

Objective: Increase truck access to and from the HSNS over the FAST system.

Performance Measure: Increases in the number of lane miles statewide brought up to STAA vehicle access standards.

COMPARISON OF THE CATEGORIES OF SELECTED FEDERALLY AIDED PROJECTS AND PROPOSED FAST-HIGHWAYS PERFORMANCE CRITERIA

prove Access Major ermodal cilities	Increase Mobility and Reduce Delay	Reduce Mobile Emissions	Maintain the Physical Integrity of the FAST System	Improve Roadway and Driver Safety	Raise All Substandard Facilities to Standards Where Possible	Increase Truck Access To and From the HSNS Over the FAST System
	●	●		●		
			●	●	●	
	●	●		●		
	●	●	●	●	●	
			●		●	
	●	●		●	●	
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●	●	●	●		●	
●	●		●	●	●	●

APPENDIX C: GOALS, OBJECTIVES AND PERFORMANCE MEASURES FOR THE TSNS

I. GOAL: Improve the efficiency of the existing National Transportation System.

- **Objective:** Increase mobility and reduce delay.
  - **Performance Measure:** Reduction in the number of SOVs using congested corridors.

II. GOAL: Preserve air quality while recognizing transportation's contribution to the economy.

- **Objective:** Reduce mobile emissions.
  - **Performance Measure:** Lowering of NOx and CO emissions at major hot spots.

III. GOAL: Preserve the federal investment in the existing transit systems.

- **Objective:** Maintain the physical integrity of all transit facilities.
  - **Performance Measure:** Adoption/Implementation of long term preventive maintenance programs.

IV. GOAL: Improve the safety of the traveling public on transit systems.

- **Objective:** Improve facilities and driver safety.
  - **Performance Measure:** Adoption/Implementation of systems-wide safety plans.

V. GOAL: Provide accessibility and mobility for all citizens.

- **Objective:** Increased access for older persons, persons with disabilities, and rural communities.
  - **Performance Measure:** Identification/implementation of projects/facilities that improve access for transit projects.

APPENDIX D: GOALS, OBJECTIVES, AND PERFORMANCE MEASURES FOR THE FAST-TRANSIT PROGRAM

- I. **GOAL:** Improve intrastate and interregional commerce.
  - **Objective:** Provide major regional commuter access to economic centers.
    - **Performance Measure:** Introduction of HOV lanes, rail transit etc. in HSNS corridors.
  - **Objective:** Improve access to major intermodal facilities.
    - **Performance Measure:** Additional park and ride transfer stations.
- II. **GOAL:** Improve the efficiency of the existing state and local system.
  - **Objective:** Increase mobility and reduce delay.
    - **Performance Measure:** Establishment of Vanpool Programs in major employment centers.
- III. **GOAL:** Preserve air quality while recognizing transportation's contribution to the economy.
  - **Objective:** Reduce mobile emissions by reducing vehicle miles traveled and increasing person miles traveled.
    - **Performance Measure:** Establish congestion pricing on corridors where substantial transit service is available.
- IV. **GOAL:** Preserve the public investment in the state and local transit systems.
  - **Objective:** Maintain the physical integrity of the facilities.
    - **Performance Measure:** Implementation of long term preventive maintenance plans/improvements in repair facilities.
- V. **GOAL:** Improve the safety of the traveling public on the FAST system.
  - **Objective:** Improve equipment and driver safety.
    - **Performance Measure:** Implementation of drug testing programs.
- VI. **GOAL:** Improve transit access to rural and urban economic activity centers.
  - **Objective:** Increase transit access to and from the HSNS over the FAST system.
    - **Performance Measure:** Support for local bus/taxi services to major interregional travel hubs (ie., intercity bus/rail stations, airports).

RECOMMENDATIONS TO CONGRESS:

1. Extend the current "pay-back" deadline for preliminary engineering funds on those projects which have not advanced to right of way acquisition or construction to 10 years, making it the same as the current federal pay-back requirement for right of way acquisition.
2. Return to the states sole discretion for requiring alternate designing of major bridges.
3. Amend Title 23 to give states sole discretion for highway project design approval and construction authorization approval for pavement replacement or overlay projects, and base and resurfacing projects that include minor widening. Approval should include, but not be limited to, such elements as pavement design or pavement rehabilitation, bridge widening, bridge rail, guardrail, fill slopes and clear zones.
4. Eliminate the required submission of a statewide program of projects under 23 USC 105 and the State Transportation Improvement Program (STIP) be allowed to take its place.
5. Designate that the Secretary of the US DOT work with the Mine Enforcement Safety Administration to rescind their regulations pertaining to temporary, small scale crushing and screening operations.
6. Give states the authority to establish their own maintenance standards, since they are subject to tort liability actions in relation to federal standards and the maintenance thereof. As an alternate, Congress could prohibit the use of federal standards in state tort liability cases.
7. Amend Title 23 to provide that if a state obtains Federal Emergency Management Agency (FEMA) compliance approval for FEMA floodplain regulations for a highway project, FHWA floodplains regulations shall not apply.
8. Amend Title 23, Section 125, to increase the participation rate for emergency relief work under the federal-aid sliding scale rates.
9. Amend 23 CFR, Chapter 810, to delegate all HOV lane determinations to states with adopted HOV system plans.
10. Amend existing law to allow US DOT to use a certification acceptance process, where substantive state laws, regulations, and procedures exist pertaining to wetlands, floodplains, and endangered species. Wetlands should be defined to exclude surface expressions of water related to man-caused sources that are dependent on economic viability for continued existence. Wetlands should define both quality and quantity of surface expressions of water and plant life. Intermittent (less than six months of duration) areas should not be included.

RECOMMENDATIONS TO US DOT:

1. Delegate the responsibility for compliance with 3R project standards to the states on a certification acceptance basis, including environmental clearance and right of way certification for local projects delegated to the states. FHWA certification acceptance would be granted for all "federal share payable" projects if requested by the state.
2. Amend its definition of "major contract change order types" (requiring written approval) to account for the cost or substantive issues involved with the change, and require compliance only for those changes which are actually major.
3. Delegate to the states the responsibility for the number of solicitations and notices mailed, the listing of contractors, the documentation of procedures, and the evaluation of contractor's expertise.
4. Eliminate its requirement for separate project recordkeeping on pay items common to multiple projects under a single contract. The states should be allowed to use plan sheet quantities for proportioning construction

pay-item units among the projects under one contract.

5. FHWA Regional Offices would delegate review of project and environmental documents to the FHWA Division Office. The Division Administrator would be required to delegate the review of legal sufficiency on non-sensitive projects to the state DOT based upon a showing by the state that it has acceptable procedures.
6. Amend F.H.P.M. 6-6-3-1 (23 CFR PART 645, Subpart A) to eliminate requirements for special FHWA authorization to relocate utilities, and the requirement that all utility agreements must have federal approval.
7. Amend F.H.P.M. 6-4-2-1 (23 CFR PART 635, Subpart C) to eliminate requirement of a detailed right of way certification with the PS&E submittal and substitute a short summary of the status of the right of way plans, certification acceptance, and post-audit.
8. Amend 49 USC Section 303 to ensure that it applies only to "significant use" and define use to mean the physical taking of property. The respective park authority should be able to determine if the impact is significant and such determination should prevail as the controlling 4(f) determination.

APPENDIX F — HSNS PROGRAM FORMULA, FAST-HIGHWAYS PROGRAM ALLOCATIONS AND EXAMPLE ALLOCATION TABLES

In the early 1990's, as we enter the post-Interstate construction era, the traditional national highway programs will need to be reshaped to respond to the "new transportation concepts for a new century." If the recommendations of AASHTO, the US DOT, the Highway Users Federation, and other associations are heeded, the hodgepodge of current federal programs must be replaced with new formulas that fit the new federal program design.

The current formulas may have worked in times past, but they clearly are out of step with the 21st century. New formulas must be created. There is no choice if the old federal programs are to be reshaped to handle new and demanding challenges.

The following assumptions were used in developing a highway program formula that would obtain the most desirable results.

Assumptions:

1. The total federal funds would be split 50-50 between the HSNS and FAST programs.
2. The half-percent guarantee is applied to the HSNS program, but not the FAST-Highways Program.
3. An 85% minimum allocation guarantee for the HSNS program is continued.
4. A flexible hold-harmless is established in the HSNS program. After adjustments for interstate completion and discretionary/demonstration funding, all states would receive no fewer federal dollars than they did in 1991.
5. As federal funding increases above 1991 levels, the hold-harmless base should be increased at an equitable percentage growth rate.
6. Total statewide urban and rural lane miles and total statewide urban and rural vehicle miles of travel are used as principal allocation factors, and separate calculations for urban and rural factors for each in the formula.
7. The formula provides a one-third weight for mileage and VMT factors — that is one-third to recognize the extensiveness of the system and one-third to recognize the usage intensiveness. Because urban costs for the national system would be more than twice as much as the rural costs, the formula gives weight on a two to one, urban to rural ratio.
8. Because the national system is intended to support interstate and international commerce, and because of the wear and tear of heavy trucks on roads and bridges, the formula uses a factor associated with heavy truck travel to comprise the final one-third. Diesel fuel sales provide an acceptable surrogate for accurate state-by-state data on truck mileage and weight and therefore should be used as the heavy truck travel allocation factor.
9. Large area, small population states (states with a population level of 25 or fewer persons per square mile) are provided a supplement to their HSNS allocations to guarantee that they will have sufficient funds for their HSNS routes. The supplement should be inversely related to population density: one person per square mile equal to 25% supplement and 25 persons per square mile equal to 0% supplement.

Figures 1 and 2 explain the distribution of the Highway Trust Fund and the HSNS and FAST-Highways Program formulas. The tables following show state-by-state funding that the formula produces, at a $13.5 billion federal funding level, with about $1 billion reserved for emergency relief, federal lands, discretionary bridge, and other off-the-top programs. Table 2 shows the detail of HSNS program allocations under the proposed formula. Table 3 shows the composite results of the total federal formula funding for basic programs. Table 1 shows the Low Population Density Supplements.

Regardless of the formula factors that are ultimately selected by Congress, US DOT and the states will need to work together to upgrade the data base to more explicitly identify lane miles to make certain the VMT is calculated on a consistent basis among the states and to seek to design an explicit truck travel data base.

Figure 1 — Highway Program Allocations Flow Chart

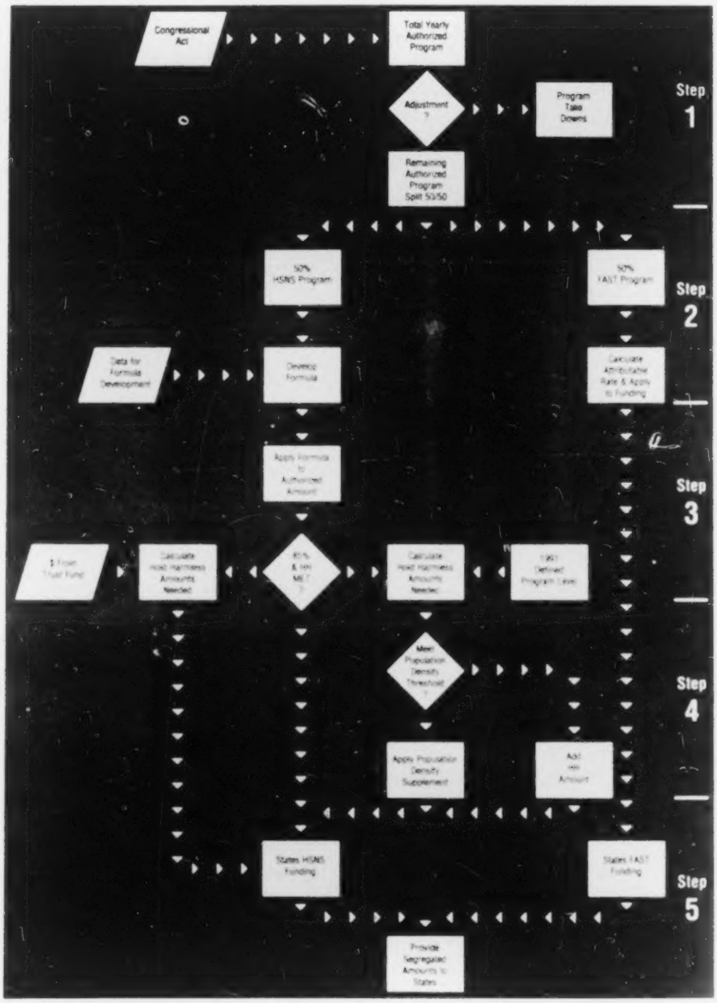
Congressional Act
Total Yearly Authorized Program
Adjustment ?
Program Take Downs
Step 1
Remaining Authorized Program Split 50/50
50% HSNS Program
50% FAST Program
Step 2
Data for Formula Development
Develop Formula
Calculate Attributable Rate & Apply to Funding
Apply Formula to Authorized Amount
Step 3
$ From Trust Fund
Calculate Hold Harmless Amounts Needed
85% & HH MET ?
Calculate Hold Harmless Amounts Needed
1991 Defined Program Level
Meet Population Density Threshold ?
Step 4
Apply Population Density Supplement
Add HH Amount
States HSNS Funding
States FAST Funding
Step 5
Provide Segregated Amounts to States

FIGURE 2 — CALCULATING THE HIGHWAY PROGRAM ALLOCATIONS

STEP 1

Congress authorizes the total annual highway program amount. Adjustments are made for the usual program takedowns (e.g., US DOT administrative costs, emergency relief, etc.). The remaining authorized program is divided 50% HSNS and 50% FAST.

STEP 2

a. HSNS Formula — The VMT, Diesel Consumption, Lane Miles data is calculated.
b. FAST Formula — Each state's proportionate percentage contributions to the Highway Trust Fund is calculated and applied to the 50% FAST-Highways Program authorization.

STEP 3

The HSNS Formula is applied to its 50% authorization. The formula results are analyzed to determine if the 85% and Hold Harmless guarantees have been met. Adjustments are made if necessary utilizing dollars in the Highway Trust Fund Reserves.

STEP 4

Population density supplements are calculated and added for those states with 25 or less persons per square mile.

STEP 5

Each state receives its HSNS program allocation and its FAST-Highways Program allocation.

STEP 6

Each state can now exercise its option to transfer up to 20% of its total apportionment to either program. Each state according to its own process, allocates the appropriate amount to the non-state systems from its FAST-Highways Program allocation.

TABLE 1 — LOW POPULATION DENSITY SUPPLEMENT

LOW POPULATION DENSITY SUPPLEMENT (in millions)

State	Low Pop. Density Supplement	Total HSNS Allocation
Alaska	$3.91	$16.96
Idaho	$6.72	$40.31
Montana	$9.23	$46.16
Nebraska	$5.92	$65.10
Nevada	$6.99	$41.92
New Mexico	$10.72	$64.54
North Dakota	$8.70	$43.48
South Dakota	$8.30	$41.52
Utah	$4.60	$50.55
Wyoming	$7.90	$39.52
US Total	$73.03	$6073.03

BASED UPON POPULATION DENSITIES OF

4 or LESS per square mile	30%
5 to 9 per square mile	25%
10 to 14 per square mile	20%
15 to 19 per square mile	15%
20 to 24 per square mile	10%
≥ 25 per square mile	0%

TABLE 2 — HSNS FORMULA DETAIL (in millions)

	RURAL		URBAN					
STATE	LANE MILES	VMT	LANE MILES	VMT	DIESEL FUEL CONSUMED	DENSITY FACTOR	TOTAL ALLOCATION	% OF TOTAL
Alabama	$15.27	$16.65	$29.99	$20.95	$48.00		$130.86	2.15%
Alaska	$2.09	$1.66	$3.01	$1.96	$4.32	$3.91	$16.96	0.28%
Arizona	$12.39	$10.85	$22.44	$23.02	$30.28		$98.98	1.63%
Arkansas	$14.20	$9.73	$13.49	$7.80	$38.94		$84.17	1.39%
California	$19.29	$40.61	$139.16	$212.89	$177.65		$589.60	9.71%
Colorado	$13.61	$8.71	$20.48	$18.67	$19.07		$80.55	1.33%
Connecticut	$1.88	$5.21	$19.21	$21.81	$20.71		$68.81	1.13%
Delaware	$0.81	$2.31	$2.93	$3.91	$5.59		$15.55	0.26%
D.C.	$0.00	$0.00	$2.18	$3.81	$2.32		$8.31	0.14%
Florida	$12.06	$23.45	$86.17	$84.74	$77.90		$284.31	4.68%
Georgia	$18.06	$23.32	$36.93	$36.81	$83.91		$199.03	3.28%
Hawaii	$0.55	$1.85	$2.76	$5.69	$2.29		$13.14	0.22%
Idaho	$11.97	$4.45	$4.29	$2.82	$10.06	$6.72	$40.31	0.66%
Illinois	$21.57	$19.59	$57.96	$60.17	$78.03		$237.32	3.91%
Indiana	$15.51	$22.67	$31.48	$25.27	$63.45		$158.38	2.61%
Iowa	$21.35	$11.13	$16.01	$8.84	$33.78		$91.11	1.50%
Kansas	$25.45	$9.54	$15.66	$10.24	$30.16		$91.05	1.50%
Kentucky	$12.93	$14.76	$13.72	$14.58	$51.22		$107.21	1.77%
Louisiana	$9.61	$13.66	$22.51	$19.55	$37.33		$102.67	1.69%
Maine	$4.05	$6.63	$4.15	$3.42	$11.62		$29.87	0.49%
Maryland	$3.46	$10.15	$22.55	$27.64	$32.87		$96.68	1.59%
Massachusetts	$2.75	$6.23	$36.11	$39.67	$29.31		$114.08	1.88%
Michigan	$18.80	$24.46	$50.17	$52.67	$53.10		$199.20	3.28%
Minnesota	$23.83	$13.61	$25.27	$21.59	$33.48		$117.79	1.94%
Mississippi	$13.45	$11.80	$12.97	$8.05	$32.17		$78.44	1.29%
Missouri	$21.54	$17.40	$27.91	$26.47	$54.04		$147.35	2.43%
Montana	$14.26	$4.85	$3.84	$2.28	$11.70	$9.23	$46.16	0.76%
Nebraska	$17.91	$6.74	$8.74	$5.50	$20.29	$5.92	$65.10	1.07%
Nevada	$8.62	$3.09	$5.85	$5.70	$11.67	$6.99	$41.92	0.69%
New Hampshire	$2.56	$4.66	$4.15	$4.08	$5.86		$21.30	0.35%
New Jersey	$2.51	$8.62	$39.99	$53.46	$51.67		$156.24	2.57%
New Mexico	$10.31	$7.40	$8.72	$6.67	$20.67	$10.76	$64.54	1.06%
New York	$15.21	$23.98	$68.58	$82.18	$70.24		$260.19	4.28%
North Carolina	$15.66	$25.29	$33.16	$29.21	$61.87		$165.19	2.72%
North Dakota	$17.36	$3.36	$3.15	$1.72	$9.19	$8.70	$43.48	0.72%
Ohio	$17.18	$27.85	$56.88	$52.49	$86.95		$241.34	3.97%
Oklahoma	$20.51	$12.88	$22.16	$18.09	$39.06		$112.69	1.86%
Oregon	$17.46	$11.00	$15.42	$12.70	$30.52		$87.10	1.43%
Pennsylvania	$18.46	$29.20	$49.79	$49.74	$93.69		$240.88	3.97%
Rhode Island	$0.31	$0.72	$7.74	$5.53	$4.40		$18.70	0.31%
South Carolina	$11.39	$16.19	$17.04	$12.73	$31.33		$88.67	1.46%
South Dakota	$14.76	$4.05	$3.15	$1.72	$9.53	$8.30	$41.52	0.68%
Tennessee	$14.19	$17.05	$27.67	$25.42	$57.97		$142.30	2.34%
Texas	$45.41	$42.71	$151.63	$114.82	$134.16		$488.73	8.05%
Utah	$7.82	$4.03	$9.90	$9.15	$15.05	$4.60	$50.55	0.83%
Vermont	$2.74	$3.40	$1.68	$1.42	$4.59		$13.83	0.23%
Virginia	$11.10	$21.14	$27.46	$34.50	$57.40		$151.59	2.50%
Washington	$13.45	$12.16	$29.59	$29.64	$34.27		$119.10	1.96%
West Virginia	$6.56	$7.95	$5.26	$4.34	$18.74		$42.86	0.71%
Wisconsin	$19.76	$17.82	$25.52	$22.40	$42.28		$127.79	2.10%
Wyoming	$8.02	$3.44	$3.40	$1.48	$15.27	$7.90	$39.52	0.65%
US TOTAL	$650.00	$650.00	$1350.00	$1350.00	$2000.00	$73.03	$6073.03	100%

TABLE 3 — SUMMARY FUNDING (in millions)

STATE	FAST HIGHWAYS PROGRAM	HSNS PROGRAM				HOLD HARMLESS	TOTAL FUNDING	OF TOTAL
		FORMULA	HALF	85 MA	TOTAL			
Alabama	$110.65	$130.86			$130.86		$241.51	1.93%
Alaska	$10.61	$16.96	$13.04		$30.00	$112.29	$152.91	1.22%
Arizona	$93.27	$98.98			$98.98		$192.25	1.54%
Arkansas	$82.23	$84.17			$84.17		$166.39	1.33%
California	$653.01	$589.60			$589.60		$1242.61	9.92%
Colorado	$77.90	$80.55			$80.55		$158.44	1.27%
Connecticut	$75.58	$68.81			$68.81	$10.52	$154.91	1.24%
Delaware	$19.15	$15.55	$14.45		$30.00	$0.54	$49.69	0.40%
D.C.	$9.21	$8.31	$21.69		$30.00	$13.18	$52.39	0.42%
Florida	$296.28	$284.31			$284.31		$580.59	4.64%
Georgia	$216.92	$199.03			$199.03		$415.94	3.32%
Hawaii	$15.25	$13.14	$16.86		$30.00	$4.56	$49.81	0.40%
Idaho	$27.69	$40.31			$40.31	$4.32	$72.32	0.58%
Illinois	$222.04	$237.32			$237.32		$459.36	3.67%
Indiana	$151.77	$158.38			$158.38		$310.15	2.48%
Iowa	$73.75	$91.11			$91.11		$164.86	1.32%
Kansas	$77.84	$91.05			$91.05		$168.89	1.35%
Kentucky	$87.17	$107.21			$107.21		$194.38	1.55%
Louisiana	$107.24	$102.67			$102.67		$209.91	1.68%
Maine	$38.74	$29.87	$0.13	$2.38	$32.39		$71.12	0.57%
Maryland	$112.42	$96.68			$96.68		$209.10	1.67%
Massachusetts	$123.34	$114.08			$114.08		$237.42	1.90%
Michigan	$201.06	$199.20			$199.20		$400.26	3.20%
Minnesota	$101.75	$117.79			$117.79		$219.54	1.75%
Mississippi	$80.40	$78.44			$78.44		$158.84	1.27%
Missouri	$156.77	$147.35			$147.35		$304.12	2.43%
Montana	$28.00	$46.16			$46.16	$32.49	$106.65	0.85%
Nebraska	$43.68	$65.10			$65.10		$108.78	0.87%
Nevada	$32.76	$41.92			$41.92		$74.68	0.60%
New Hampshire	$25.19	$21.30	$8.70		$30.00		$55.19	0.44%
New Jersey	$192.21	$156.24		$4.46	$160.70		$352.91	2.82%
New Mexico	$49.11	$64.54			$64.54		$113.64	0.91%
New York	$298.35	$260.19			$260.19		$558.54	4.46%
North Carolina	$188.12	$165.19			$165.19		$353.31	2.82%
North Dakota	$21.29	$43.48			$43.48	$7.04	$71.81	0.57%
Ohio	$252.54	$241.34			$241.34		$493.88	3.94%
Oklahoma	$104.98	$112.69			$112.69		$217.67	1.74%
Oregon	$79.54	$87.10			$87.10		$166.65	1.33%
Pennsylvania	$270.84	$240.88			$240.88		$511.72	4.09%
Rhode Island	$20.80	$18.70	$11.30		$30.00		$50.80	0.41%
South Carolina	$92.29	$88.67			$88.67		$180.96	1.45%
South Dakota	$22.45	$41.52			$41.52	$15.64	$79.61	0.64%
Tennessee	$150.55	$142.30			$142.30		$292.85	2.34%
Texas	$468.36	$488.73			$488.73		$957.09	7.64%
Utah	$44.35	$50.55			$50.55		$94.90	0.76%
Vermont	$15.31	$13.83	$16.17		$30.00	$8.39	$53.70	0.43%
Virginia	$164.03	$151.59			$151.59		$315.62	2.52%
Washington	$114.68	$119.10			$119.10		$233.78	1.87%
West Virginia	$47.64	$42.86			$42.86	$20.46	$110.96	0.89%
Wisconsin	$118.34	$127.79			$127.79		$246.13	1.97%
Wyoming	$32.57	$39.52			$39.52	$8.36	$80.46	0.64%
US TOTAL	$6100.00	$6073.03	$102.33	$6.85	$6182.21	$237.78	$12,519.99	100%

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STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY
GEORGE DEUKMEJIAN, Governor

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August 16, 1990

The Honorable Alan Cranston
United States Senate
Senate Office Building
Washington, D.C. 20510

Dear Senator Cranston:

During the hearing of the Subcommittee on Housing and Urban Affairs on August 8, 1990, you asked for my thoughts on how Congress might approach the integration of transit and highway funds.

In response to your question, I have prepared a brief paper that I believe offers an opportunity to move towards greater integration. During an earlier hearing before Congressman Mineta's Subcommittee on Surface Transportation, Congressman Anderson asked me to provide additional information on the fiscal impacts that our recommendations would have on transit funding in California. I have taken the liberty of including in this package, a copy of our response to Congressman Anderson's inquiry.

Please contact me if I can be of further assistance.

Sincerely,

Bob Best

ROBERT K. BEST
Director

Attachments

THE EFFECT ON TRANSIT FUNDING FOR CALIFORNIA UNDER CALIFORNIA'S PROPOSAL FOR A POST INTERSTATE FEDERAL SURFACE TRANSPORTATION PROGRAM

BACKGROUND

California has made a number of specific recommendations that would, if adopted by Congress, change program and funding arrangements with respect to mass transit. These recommendations are included in the booklet "Addressing Modern Transportation Challenges."

California, in cooperation with other states, has attempted to reconcile multi-state concerns with respect to current federal mass transit programs. One of the principal concerns raised by many other states is the appearance of inequity in transit funding distribution with a few states receiving the majority of funds and many other states very little. The challenge in developing a new program is to adopt an apparently more equitable distribution of funds that still allows states with major urban areas to address critical transit needs.

In the past the federal transit program has been characterized by short term, wide fluctuations in funding availability. Many local/area jurisdictions point out that the unreliability of funding prevents meaningful budgeting and planning and thus contributes to the lack of a coordinated and well planned transportation effort. The following table summarizes for

California the source and use of current funds for transit as well as the amounts received by California during the period 1984 through 1990:

Summary of Principle UMTA Apportionments by

Source, Amounts, Distribution and Purpose

Source	Amount	Distribution Method	Purpose
General Fund	2 cents*	Formula	Operations
Gas Tax	1 cent	Discretionary Grant	Capital

California's Share of UMTA Apportionments (In Millions)

Discretionary and Formula Funds

1984 through 1990

	1984	1985	1986	1987	1988	1989	1990
Section 3 (Discretionary)	229.40	101.20	367.90	158.40	148.50	65.80	358.42
Percent of Total Nat'l Section 3	20%	13%	31%	21%	16%	5%	34%
Section 9 (Formula)	321.37	341.83	283.47	279.00	248.74	222.77	191.17
Percent of Total Nat'l Section 9	13%	14%	14%	14%	14%	13%	11%
TOTAL	550.77	443.03	651.37	437.40	397.24	288.57	549.59
California's Percent of Total National	15%	14%	20%	16%	15%	10%	20%

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* General funds available for transit are said to be roughly equivalent to the amount that would be generated by a 2 cent gas tax.

During the period of 1984-1990, California has received annually an average of 20 percent of the Discretionary (Section 3) funds, 14 percent of Formula (Section 9) funds and in aggregate, 15.7 percent of all funds distributed.

These figures produce a combined average UMTA investment in California of $432 million each year.

California's recommendations for combining Section 3 and Section 9 funds suggest dedicating 15 percent to a Transit System of National Significance (TSNS) and 85 percent to the FAST-Transit Program. California would annually receive $390 million or about $42 million less than the average of the past seven years from the funds currently dedicated to transit. This recommendation, however, cannot be evaluated in isolation. It is part of a larger set of recommendations for the federal surface transportation program that includes two other key elements related to transit funding:

1) The return to California from funds currently dedicated to highway purposes would be increased by approximately $98 million[*].

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[*] This figure is arrived at as follows: we have recommended that 50% of all federal trust fund distributions go to a flexible program called the Federal Aid Surface Transportation Program. States would receive an amount equal to their contributions. In California this would amount to roughly $653 million or $98 million more than the current 85% MA would guarantee.

2) The state would be allowed to utilize for transit funding a portion of the funds now solely dedicated to highway purposes.

Under these proposals, transit in California would likely receive annually more federal funding than is currently received. And California as a whole would likely receive about the same or a little more of federal surface transportation funding than is currently received.

Under California's recommendations transit funding would come from new sources. Table 3 from California's "Addressing Modern Transportation Challenges" is attached for easy reference. This table, which is based on current trust fund distribution levels, assumes that the Highway System of National Significance (HSNS) funding will represent 50 percent of the total ($12.5 billion) funds. In California, these funds would amount to about $590 million. In our report, we recommend that Congress permit local governments to use HSNS funds in urban areas for off system improvements (including transit) when it can be demonstrated that such an investment will be the best solution to solving congestion on the HSNS facility (see Page 5 of the California report).

In California there are about 12,500 centerline miles of interstate and principal arterials. Of these, roughly 8,150, or

65 percent, traverse urban areas. As a result, about $384 million of the $590 million HSNS total funding would be subject to use for potential transit funding in urban areas. Assuming a modest 20 percent of these funds were programmed for transit solutions by metropolitan planning organizations, then roughly $77 million[1] would be added to the $390 million received from the transit formula and discretionary programs. This is a total of $467 million (or $35 million more than the current average) that would be directed to transit.

In addition California would have the opportunity to combine FAST-Highway and FAST-Transit funds and use them in accordance with a regional transportation improvement plan (see Page 15 of the California report). This recommendation creates another opportunity for transit funding.

The recommendations we have made will promote the possibility of a national consensus on a large formula-driven transit funding program. Considerable support can be expected from states which have, in the past, shared only modestly in transit funds. And, California will not suffer from either reduced transit funding or reduced overall funding.

California's proposals with respect to transit were designed to meet multi-states' needs for a fair share of transit funds and were intended to be even-handed and consistent with our own desire for equitable treatment in the distribution of federal-aid funds.

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[1] If the proportion of funds earmarked for the HSNS were increased above the assumed 50 percent level, this number would increase.

The specific concerns raised by other states that we have attempted to address are:

1) Many states that contribute substantial sums to the trust fund receive little or nothing in return for transit from either the trust fund or the general fund. These states receive no large descretionary grants and the formula for distribution from the general fund is often dramatically less than the state's contributions to the trust fund.

2) Most states receive nothing from the discretionary portion of the program since only a handful of cities receive these grants.

3) Many states believe that if discretionary grants are to be considered as being in the nation's general interest, they should include, in large part, the general fund portion of current transit funding.

4) Many jurisdictions, including those receiving discretionary

grants, would like to have maximum flexibility in the use of these funds.

5) Most states would prefer that Congress not dictate pass-through requirements or other relationships between state and local/area officials, preferring instead to work these issues out in their own state.

In summary, a great deal of support exists for stable, predictable transit funding. California's transit interests will receive more funding provided that other recommendations are adopted to allow federal funds to be used in effective transportation solutions in urban areas without regard to mode. In addition to these increased funds, transit will receive significant increases from state sources created by Propositions 108 and 111.

Attachments

TABLE 2 — HSNS FORMULA DETAIL (in millions)

STATE	RURAL		URBAN		DIESEL FUEL CONSUMED	DENSITY FACTOR	TOTAL ALLOCATION	% OF TOTAL
	LANE MILES	VMT	LANE MILES	VMT				
Alabama	$15.27	$16.65	$29.99	$20.95	$48.00		$130.86	2.15%
Alaska	$2.09	$1.66	$3.01	$1.96	$4.32	$3.91	$16.96	0.28%
Arizona	$12.39	$10.85	$22.44	$23.02	$30.28		$98.98	1.63%
Arkansas	$14.20	$9.73	$13.49	$7.80	$38.94		$84.17	1.39%
California	$19.29	$40.61	$139.16	$212.89	$177.65		$589.60	9.71%
Colorado	$13.61	$8.71	$20.48	$18.67	$19.07		$80.55	1.33%
Connecticut	$1.88	$5.21	$19.21	$21.81	$20.71		$68.81	1.13%
Delaware	$0.81	$2.31	$2.93	$3.91	$5.59		$15.55	0.26%
D.C.	$0.00	$0.00	$2.18	$3.81	$2.32		$8.31	0.14%
Florida	$12.06	$23.45	$86.17	$84.74	$77.90		$284.31	4.68%
Georgia	$18.06	$23.32	$36.93	$36.81	$83.91		$199.03	3.28%
Hawaii	$0.55	$1.85	$2.76	$5.69	$2.29		$13.14	0.22%
Idaho	$11.97	$4.45	$4.29	$2.82	$10.06	$6.72	$40.31	0.66%
Illinois	$21.57	$19.59	$57.96	$60.17	$78.03		$237.32	3.91%
Indiana	$15.51	$22.67	$31.48	$25.27	$63.45		$158.38	2.61%
Iowa	$21.35	$11.13	$16.01	$8.84	$33.78		$91.11	1.50%
Kansas	$25.45	$9.54	$15.66	$10.24	$30.16		$91.05	1.50%
Kentucky	$12.93	$14.76	$13.72	$14.58	$51.22		$107.21	1.77%
Louisiana	$9.61	$13.66	$22.51	$19.55	$37.33		$102.67	1.69%
Maine	$4.05	$6.63	$4.15	$3.42	$11.62		$29.87	0.49%
Maryland	$3.46	$10.15	$22.55	$27.64	$32.87		$96.68	1.59%
Massachusetts	$2.75	$6.23	$36.11	$39.67	$29.31		$114.08	1.88%
Michigan	$18.80	$24.46	$50.17	$52.67	$53.10		$199.20	3.28%
Minnesota	$23.83	$13.61	$25.27	$21.59	$33.48		$117.79	1.94%
Mississippi	$13.45	$11.80	$12.97	$8.05	$32.17		$78.44	1.29%
Missouri	$21.54	$17.40	$27.91	$26.47	$54.04		$147.35	2.43%
Montana	$14.26	$4.85	$3.84	$2.28	$11.70	$9.23	$46.16	0.76%
Nebraska	$17.91	$6.74	$8.74	$5.50	$20.29	$5.92	$65.10	1.07%
Nevada	$8.62	$3.09	$5.85	$5.70	$11.67	$6.99	$41.92	0.69%
New Hampshire	$2.56	$4.66	$4.15	$4.08	$5.86		$21.30	0.35%
New Jersey	$2.51	$8.62	$39.99	$53.46	$51.67		$156.24	2.57%
New Mexico	$10.31	$7.40	$8.72	$6.67	$20.67	$10.76	$64.54	1.06%
New York	$15.21	$23.98	$68.58	$82.18	$70.24		$260.19	4.28%
North Carolina	$15.66	$25.29	$33.16	$29.21	$61.87		$165.19	2.72%
North Dakota	$17.36	$3.36	$3.15	$1.72	$9.19	$8.70	$43.48	0.72%
Ohio	$17.18	$27.85	$56.88	$52.49	$86.95		$241.34	3.97%
Oklahoma	$20.51	$12.88	$22.16	$18.09	$39.06		$112.69	1.86%
Oregon	$17.46	$11.00	$15.42	$12.70	$30.52		$87.10	1.43%
Pennsylvania	$18.46	$29.20	$49.79	$49.74	$93.69		$240.88	3.97%
Rhode Island	$0.31	$0.72	$7.74	$5.53	$4.40		$18.70	0.31%
South Carolina	$11.39	$16.19	$17.04	$12.73	$31.33		$88.67	1.46%
South Dakota	$14.76	$4.05	$3.15	$1.72	$9.53	$8.30	$41.52	0.68%
Tennessee	$14.19	$17.05	$27.67	$25.42	$57.97		$142.30	2.34%
Texas	$45.41	$42.71	$151.63	$114.82	$134.16		$488.73	8.05%
Utah	$7.82	$4.03	$9.90	$9.15	$15.05	$4.60	$50.55	0.83%
Vermont	$2.74	$3.40	$1.68	$1.42	$4.59		$13.83	0.23%
Virginia	$11.10	$21.14	$27.46	$34.50	$57.40		$151.59	2.50%
Washington	$13.45	$12.16	$29.59	$29.64	$34.27		$119.10	1.96%
West Virginia	$6.56	$7.95	$5.26	$4.34	$18.74		$42.86	0.71%
Wisconsin	$19.76	$17.82	$25.52	$22.40	$42.28		$127.79	2.10%
Wyoming	$8.02	$3.44	$3.40	$1.48	$15.27	$7.90	$39.52	0.65%
US TOTAL	**$650.00**	**$650.00**	**$1350.00**	**$1350.00**	**$2000.00**	**$73.03**	**$6073.03**	**100%**

CAN TRANSIT AND HIGHWAY FUNDS BE EFFECTIVELY INTERGRATED?

ISSUE

Is there a way for Congress to integrate mass transit and highway programs while protecting the interests of each mode?

BACKGROUND

The resolution of this apparently straightforward programs issue is frustrated by a number of longstanding attitudinal and statutory constraints that will need to be addressed. Flexibility in the use of funds is essential if the "best" transportation solutions are to be selected by decision makers.

The statutory program and funding structures are the key inhibiting factors in preventing state and local governments from exercising choice in seeking solutions to particular transportation problems. Federal transit funds come from two main sources: one cent of the federal nine cent gas tax and an amount said to be equal to roughly 2 cents of gas tax from the general fund. Highway funding is the remaining 8 cents of the federal nine cent gas tax. Each source is dedicated to its particular mode. The one cent of gas tax earmarked for transit is distributed by discretionary grant and the eight cents for highways is distributed by formula. Both are used largely for capital investment. The two cent equivalent from the general fund is distributed by formula and is used principally for transit operations.

This complex structure can be summarized in an over-simplified way by the following table:

Mode	Source	Amount	Distribution Method	Purpose
Transit	Gas Tax	1 cent	Discretionary Grants	Capital
Transit	General Fund	2 cents[1]	Formula Grants	Operations
Highways	Gas Tax	8 cents	Formula Grants	Capital

This rigid program structure does not allow the integration of funds, and strong, influential constituencies have developed around each funding source. The result has been strident program loyalty accompanied by suspicion and mistrust of those associated with other modes. For example, transit constituencies tend to point to cars and trucks as the source of major mobile air pollution while ignoring pollution contributed by diesel buses. Highway proponents point to the low mass transit ridership, the high cost of construction and operation while ignoring the fact that roadway construction and maintenance costs have skyrocketed and congestion continues to make new highways rapidly obsolete. Several major considerations will influence any attempt to integrate transportation programs:

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[1] Generally not fully funded. The general fund is said to provide an amount roughly equal to revenue generated by 2 cents of the federal gas tax. In fact, the number has been closer to 1.8 cent in recent years.

1) Both the highway and mass transit constituencies will insist on assurances of funding to complete unfinished interstate (including substitutions) and major transit starts now underway.

2) Full integration of transportation programs and funding, with all its advantages, raises difficult questions around the sorting out of responsibilities and authority. Existing constituencies are unlikely to accept the uncertainty of such a dramatic program change.

3) Many states who now contribute substantial sums to both the "transit" and highway trust funds believe they have been treated unfairly and will insist on receiving reasonable amounts regardless of any new program structure adopted by Congress.

4) It will be most difficult to make major changes in program structure and funding arrangements during the reauthorization process.

These considerations suggest that the best approach is to move toward the integration of transit and highway programs through important incremental steps as outlined below:

A. Planning

1) Establish an overall national strategic direction to address transportation problems with the best solutions regardless of mode.

2) Require intermodal, continuous, coordinated, and cooperative planning at the state and local level which advances the national strategies. Integrate planning funds for all modes and expressly require that they be used for local/area multimodal planning.

3) Mandate that the US DOT Secretary establish broad, flexible federal planning guidelines that require each state and its local entities to create a planning process that meets federal objectives but accommodates each state's respective physical, political, and related circumstances.

Federal law should not mandate a specific process, as many states have created effective approaches that perform well in their respective political, economic and geographic environments. States without such a process could be provided a reasonable amount of time in which to develop one.

4) Through the US DOT Secretary, require that each state certify that it has developed an integrated program of

projects, including all modes, that is based on a comprehensive multimodal transportation planning process carried on cooperatively by states and local/area agencies. This process will ensure that transit and other modes are given careful consideration at the point closest to the problem.

5) Hold each state accountable for the results of their transportation planning and programming by requiring each state to submit a biennial evaluation report that indicates progress toward meeting congressional goals.

B. Program/Funding Structure

1. Provide for the use of MTA and general fund transit monies on an interchangeable basis.

2. Distribute as large a portion of transit monies as possible by formula to all states to ensure a stable and consistent funding source on which to base long-term local/area planning and budgeting decisions.

3. In accordance with planning processes, allow maximum discretion at the local/area level with respect to the

use of formula grant funds. This flexibility is almost universally sought by transit officials.

4. Establish a local match requirement for transit that is identical to the match requirement for highway programs. Uniform matching ratios are important so as to avoid the temptation to build only the transportation project that receives the most federal dollars.

5. Use remaining funds for discretionary project completion. This follow-through is expected among most transit and highway interests.

6. Encourage, through tax and program policy, the use of privatization and value capture in and around transit facilities. California is now involved in a major privatization demonstration program. There are a number of changes that Congress could make to encourage private capital to flow to transit and other public infrastructure.

C. Direct Integration

1. Establish a fixed portion (e.g. 10 percent) of each trust fund to be designated "multimodal" and establish a five year test program to determine how those funds

are used. Under this concept, "multimodal" funds could be used as capital on any transit/highway project depending on state/local/area decisions.

2. Require participating jurisdictions to report to Congress periodically on what projects were funded and how decisions were made.

SUMMARY

The current program structure and the constituencies created around the various funding sources make it difficult to integrate transit and highway programs to achieve the goal of selecting the "best" solutions to transportation problems. Therefore, an incremental approach as outlined above appears to have the best opportunity for success. In subsequent years, based on positive results, Congress could move further toward the goals of integrated transportation programs.

May 1990 **The Bay Area Economic Forum**

Market-Based Solutions to the Transportation Crisis

Executive Summary

BAY AREA
ECONOMIC
FORUM

*A Partnership of the Association
of Bay Area Governments
and the Bay Area Council*

Message from the Chairman

We need to challenge the conventional wisdom about how we should improve our air quality and reduce traffic congestion. Too often, our policies attempt to solve problems by regulating behavior. *Market-Based Solutions to the Transportation Crisis*, a two-part report summarized here, presents a new approach.

The Bay Area Economic Forum believes that the most efficient and least disruptive means of solving many problems in our society is to adopt a pricing mechanism that accurately reflects the true cost of each individual's options. This approach allows people to make individual choices, but signals clearly the cost and consequences of the choices they make. These signals will encourage behavior that is in the best overall interest of our community.

Such an approach can be applied to many issues; in this report, we use it to address our region's air pollution problem. The 1988 California Clean Air Act requires the Bay Area to adopt transportation management strategies to achieve mandatory air quality standards. The Forum believes — and this report demonstrates — that the best way to achieve this goal is by means of a pricing system that reflects the cost to society of the decisions each of us makes regarding how and when we travel.

The Forum is uniquely positioned to make this proposal. As a public/private partnership, we bring together elected officials, academic leaders, and business executives to encourage a constructive dialogue about the problems facing our region's economy. Out of this dialogue come the kind of enlightened, far-sighted, practical policy recommendations this report contains.

We urge you to read this report, to think about it and to communicate with your elected officials. Let them know how you want to clean up the air and reduce traffic congestion.

Robert T. Parry

Robert T. Parry
Chairman
Bay Area Economic Forum

President & CEO
Federal Reserve Bank
of San Francisco

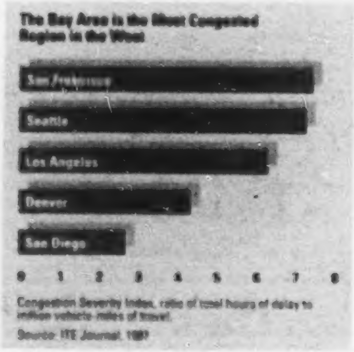
How Can We Solve Our Region's Transportation Crisis?

We must respond to our region's transportation crisis. Deadlines for formulating that response are upon us. Public discontent with traffic congestion and state mandates to improve air quality require immediate action. Unless a better approach is offered, measures could be adopted that harm the Bay Area economy and way of life. The Bay Area Economic Forum recommends an approach that offers the prospect of relief from congestion and compliance with air pollution standards, while preserving our quality of life -- an approach that uses the market principles that work so well in other areas of our economy.

The market-based approach refocuses our system for financing transportation on those who use it. It asks users, not the general public, to pay for transportation services. And it makes sure that users enjoy the benefits of the fees they pay.

New air pollution laws are forcing the Bay Area to adopt a drastic plan to cut vehicle emissions. Highly restrictive regulatory measures are now under serious consideration: banning driving on alternate days, gas rationing, vehicle rationing, and no-driving zones in cities. Such measures could have a severe impact on the region's economy and on personal freedom and flexibility.

The approach offered here will reduce congestion and pollution with the least disruption of our community. Unlike the alternatives, this approach is fair to low-income citizens. Unlike the alternatives, this approach will work.



Source: ITE Journal, 1987

Severe congestion is eroding our valued lifestyle and weakening our economy.

Why This Report? Why Now?

To meet stringent state air quality standards mandated by the 1988 California Clean Air Act, the Bay Area must adopt "transportation control measures" (TCMs) to reduce traffic congestion. These TCMs will become part of the Regional Air Quality Plan (due June 1990), which aims to cut vehicle emissions by 35% in 1997.

This ambitious reduction will require extraordinary, perhaps painful, changes. Any effective program to comply with the law will be unpopular at first – until the public and policy-makers begin to view it as the best among difficult choices.

The Bay Area Economic Forum has targeted the transportation issue as a critical regional problem. Clean air and economic vitality are not mutually exclusive goals. On the contrary, improved air quality will enhance the region's economy, if appropriate policies are adopted. The challenge is to identify and adopt workable remedies.

How Bad Is the Problem?

Our failure to solve transportation problems is costing us nearly $2 billion annually. Part of this cost is the value of time lost in congestion. Bay Area residents are delayed in traffic nearly 100 million hours each year, and congestion levels have risen 25% in just three years.

There are also costs exacted by air pollution. Automotive emissions are the largest contributor to air quality problems in the Bay Area. These emissions exact a cost in the form of damage to health, property, and our natural environment.

Our transportation problems are reshaping the region. Jobs are dispersing partly because of the congested state of transportation facilities. Companies are moving to outlying areas, or leaving the region, to get access to the labor they need.

The key element in the transportation crisis is the failure of public policy to keep pace with, and manage, growth in transportation demand. Existing facilities are not used efficiently; funding systems have broken down; and transit agencies are finding it increasingly difficult to fund their operations out of public sources.

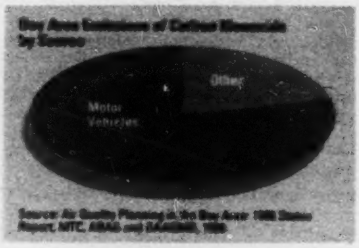
The Forum believes it is time for a bold new approach: a market-based approach.

What Is a Market-Based Approach?

The concept behind this approach is a simple one: only users should pay for the cost imposed by their choice to use the system. Specifically, drivers using heavily-polluting vehicles on congested roads at peak periods should pay fees that reflect the costs of the congestion and the pollution they impose.

The market-based approach relies mainly on a system of fees linked to vehicle emission levels. These fees alert individuals to the pollution costs they are imposing, thereby encouraging them to choose the most economical and socially beneficial means of travel.

Under a market-based system, users would retain the ability to choose among various options based on the cost of each alternative. In contrast, under the regulatory approaches offered elsewhere, individuals would have choices made for them.


Bay Area Emissions of Carbon Monoxide by Source

Source: Air Quality Planning in the Bay Area: 1988 Status Report, MTC, ABAG and BAAQMD, 1988

Because vehicle emissions are the largest source of pollutants, auto use must be drastically reduced to comply with state clean air standards.

How Would It Be Applied?

In reviewing specific proposals for reducing automobile-generated air pollution in our region, the Forum assessed five aspects of each alternative:

- impact on air quality
- impact on the regional economy
- impact on mobility
- feasibility
- acceptability

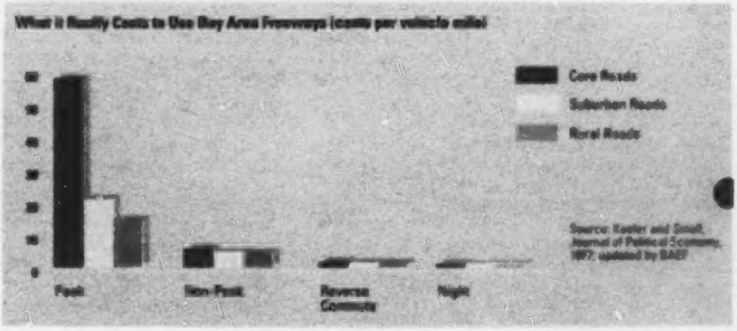
The Forum supports measures which directly reduce pollution -- charging an annual "smog fee" based on the actual emissions of each car, and implementing an enhanced vehicle inspection and maintenance program.

The advantage of emissions fees and inspection is twofold. First, they impose a fee based on a careful assessment of the public cost imposed by individual choice. Thus, if a car has particularly dirty emissions, the owner will be charged accordingly for the disproportionate impact he or she has on air pollution in the region. Second, a massive bureaucracy need not be created to implement these measures.

The Forum supports a number of other market-based measures which should benefit the region's air quality by reducing overall vehicle-miles traveled and congestion. These include highway user fees, particularly during peak-hour commute periods; raising the gasoline tax; establishing a regional network of high-occupancy-vehicle (HOV) lanes; and initiating employer-based financial incentives, such as employee travel allowances and elimination of free parking.

These indirect measures recommended by the Forum are part of a broader strategy to reduce traffic congestion.

The cost of providing highways is proportional to peak hour use. So why not charge more to use the roads at peak periods?


What it Really Costs to Use Bay Area Freeways (cents per vehicle mile)

Source: Keeler and Small, Journal of Political Economy, 1977; updated by BAEF

Institution of peak-period highway user fees, for example, reflects the relatively high costs of this type of travel. These fees will encourage behavior that costs less, such as carpooling, riding public transit, or delaying or eliminating unnecessary trips during the peak period. Additionally, having employers charge for employee parking will provide a financial incentive for workers to select alternatives to driving alone, which will lessen both congestion and pollution.

In the absence of direct fees, raising gas taxes is a way to levy an emissions fee since emissions are linked to the amount of gas burned.

A critical component of this approach is that fees would be used only to fund transportation improvements in the traffic corridor in which they were collected. That way, users can see the benefits of the fees, through such improvements as carpool lanes, public transit and park-and-ride lots.

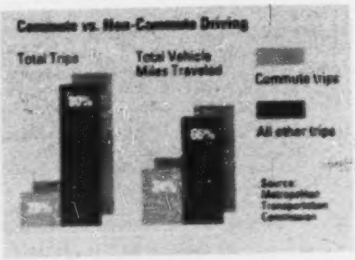
Is This Approach Fair?

A market-based approach is inherently more fair than regulatory alternatives, since it applies equally to all drivers based on their actual behavior. It does not seek to single out one group (as do, for example, regulatory measures aimed strictly at those who work for large employers). Nor does it place the choice of how people are to behave in the hands of governmental agencies. Rather, it leaves each of us the freedom to choose how, when and where we travel. But we have to take into account the price for each option based on the public costs it imposes.

It has been argued, however, that not all drivers are equal. The market-based approach might discriminate against the poor, since they are least able to afford the higher fees imposed. This argument is wrong.

The Forum's market-based measures provide revenue to finance low-cost travel alternatives. This enables people to choose carpools and transit in order to save money. Such funding can also be used to offset any impact on the poor through tax credits or direct financial assistance to bring vehicles up to code.

In contrast, regulatory mechanisms would not generate revenue, and would require a larger government bureaucracy, for which everyone pays regardless of whether they drive or pollute. No funds are left to finance more socially beneficial transportation alternatives.



Commute travel constitutes only 20% of total trips. Any comprehensive TCM plan needs to address both commute and non-commute driving.

Market-based measures also apply to all driving, not only home-to-work commute as some proposals do. Commuting makes up only 20% of total trips traveled and 34% of miles traveled. An even smaller proportion of total trips are taken by employees of large employers. Thus, to single out commuters, or commuters who work for large employers, as the target group to reduce air pollution is unfair and ineffective.

How About Transit?

These proposals are not intended to force travelers into using public transit. If the full costs of driving are assessed, however, transit will be a much more attractive alternative than it is today. Bus transit service in particular can be added relatively quickly. As congestion is relieved, especially on HOV lanes, service quality of bus transit will rise. As transit is used more intensively, additional routes and point-to-point service become more economical. With implementation of market-based pricing, transit will become a speedier, more convenient, and more cost-effective way to travel.

Will it Work in the Bay Area?

The market-oriented approach – smog fees, highway user fees, and corridor-specific transportation improvements – gives individuals a strong motivation to reduce air-polluting and traffic-congesting behavior through clear price signals. It preserves freedom of choice to a greater degree than regulatory methods, and makes the driver/polluter pay in relation to the burden placed upon the system.

Relatively little bureaucracy is needed to maintain the market-based system, because positive changes are the consequence of millions of choices made by individuals every day. When individuals make a transportation choice that is beneficial to the community, they are rewarded, in terms of money or convenience; when they make a choice detrimental to the community, they pay. The main results are: (1) polluting and traffic-congesting behavior is reduced substantially; and (2) revenues are generated to improve transportation options and to ease any undue impacts on those least able to afford them.

The market choice is the right choice for the Bay Area. The Bay Area Economic Forum urges the region's political leaders to choose this path and make the Bay Area a model for other regions around the nation.

The Forum Recommends:

Market-based approaches which establish financial incentives for less-polluting and less-congesting driving practices.

Primary measures will immediately and directly reduce pollution, while secondary measures will indirectly reduce pollution by reducing driving and traffic congestion. Most of these measures will generate revenue to fund transportation improvements, and can also be used to offset costs for low-income drivers.

Primary Measures

Smog Fee: Charge fees based on actual emissions level of vehicles, proportional to miles driven.

Enhanced Vehicle Inspection Program: Require more frequent inspection with higher ceiling on cost to bring vehicles up to standard.

Secondary Measures

Tolls on Bridges & Highways: Charge new or higher tolls on bridges, new highways, and congested sections of existing highways -- particularly at peak periods.

Employee Incentives: Institute travel allowances for employees instead of free parking, as an incentive to use options to driving alone.

High-Occupancy-Vehicle (HOV) Lane Network: Create a regionwide network of HOV lanes to offer commuters a time- and cost-saving alternative to driving alone.

Gas Tax Increase: Raise the gasoline tax significantly to finance transportation improvements and improve options to driving alone.

The Forum Does *Not* Recommend:

Driving restrictions or capacity restrictions which would seek to ration road space, vehicle ownership, and vehicle use, or halt construction of road improvements.

The Forum believes such an arbitrary regulatory approach would be expensive, ineffective, and would threaten the region's economy. Also, such measures would not generate any revenue to fund improvements, as Forum measures would.

The Bay Area Economic Forum is a public/private partnership of the Association of Bay Area Governments and the Bay Area Council. Composed of the highest levels of government, business, academic and civic leadership of the area, the Forum is a permanent body addressing economic issues of the San Francisco Bay Region – a metropolitan area of nine counties and six million people. Its members are committed to actions geared to fulfilling the economic potential of the area while maintaining our unique and valued quality of life.

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This Executive Summary, produced by the Bay Area Economic Forum, introduces a two-part report on *Market-Based Solutions to the Transportation Crisis.* For copies of the full report, or additional copies of this summary, call or write the Forum.

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TESTIMONY OF ARIELLE E. LEONARD, DIRECTOR OF TRANSPORTATION AND LAND USE

SANTA CLARA COUNTY MANUFACTURING GROUP

BEFORE THE UNITED STATES SENATE SUBCOMMITTEE ON HOUSING AND URBAN AFFAIRS

WEDNESDAY, AUGUST 8, 1990

5201 Great America Parkway Suite 426 Santa Clara, California 95054 (408) 496-6801 Fax (408) 496-6804 Printed on Recycled Paper

Chairman Cranston and Members of the Subcommittee, thank you for the opportunity to provide testimony to the Subcommittee on Housing and Urban Affairs. My name is Arielle Leonard and I am the Director of Transportation and Land Use for the Santa Clara County Manufacturing Group.

The Manufacturing Group is a business association with more than 100 corporate members which addresses public policy issues that impact the business climate and the quality of life in the Santa Clara Valley.

Since its inception over a decade ago, the Manufacturing Group has viewed transportation and land use as priority issues and has been extremely active in helping to set the stage, on a policy level, for the development of an optimum transportation system in our county and our region. The Manufacturing Group initiated and supported the county's half-cent sales tax in 1984 as well as the recent passage of Proposition 111. In addition, we have given support to the regional rail plan, the continuance of the CalTrain services and the light rail system in Santa Clara County. We are represented on Santa Clara County's Private Sector Advisory Committee.

As we have emphasized before, a modern, efficient transportation system in Silicon Valley is crucial to the continued vitality of our high-tech industry. This is true for two key reasons:

First, if this country is to remain competitive in the high-tech arena, then key centers of high-tech activity--such as the Silicon Valley--must continue to attract the best and the brightest minds to keep these industries flourishing. This means that, in addition to offering excellent professional opportunities, the area must have both housing available at a competitive cost and a transportation system that enables one to get from home to work and back without involving two hours in a traffic jam. Congestion also means that the cost of shipping materials and goods increases and that the productivity of workers declines--both situations with negative ramifications on the competitiveness of a company.

Secondly, businesses will soon be required to play a new role in the implementation of transportation demand management programs. Here in the Silicon Valley, within the next month or two, we anticipate that five of our cities will be adopting a uniform transportation demand management ordinance which will set in motion a three-year phased-in mandatory rideshare program for all mid- and large sized businesses. Businesses will eventually be required to develop rideshare programs for employees designed to achieve a 1.33 average vehicle ridership at each work site. With the creation of the new Congestion Management Plan as a result of Proposition 111, it is reasonable to assume that these requirements will soon be adopted by all cities in the county. Adoption of this ordinance will mean thousands of dollars of increased costs for Santa Clara County business.

On a regional level, the passage of the 1988 California Clean Air Act required that MTC and our regional air district develop a program of regional transportation control measures aimed at reducing vehicle emissions. Every proposed tcm program so far has included some mention of mandatory rideshare programs at business sites.

Let me stress that the business community in Santa Clara County is not opposed to these requirements, per se, provided that they are reasonable and that the benefits in terms of increased ridesharing rates (and that includes transit usage) is in decent proportion to the cost incurred by business to implement the program. The biggest concern to business is this: if our charge, ultimately, is to get employees out of the solo-driving commute mode, then clearly our transportation system must be capable of supporting this goal. That means it must function effectively in getting people around the region whether they're traveling short distances or long (resident-workers in Santa Clara County have the second shortest average commute distances in the region at about 9.4 miles), whether they're commuting or not (only 22% of trips are commute trips) or whether their trips involve crossing from one transit district's "territory" to another. In other words, if we want people to make optimum use of transportation alternatives (e.g., transit, carpooling, etc.) then the system must be, as we're fond of saying in the high-tech business, "user friendly."

What is the role of the federal government in ensuring that our transportation system is conducive to our meeting our regional goals of mobility and clean air?

First, it is essential that that federal funding continue to be available for our regional transportation projects. While Californians, and certainly Santa Clarans, are not adverse to reaching into their own pockets to fund needed projects, federal dollars will better enable us to keep pace with the population growth the state is expecting over the next twenty years.

Funding guidelines should be established that encourage regional planning but take into account local transportation needs and priorities. The federal funding process should be flexible enough to allow regions to establish their own priorities.

MTC has referred to a "systems" approach and this is a concept we support. In the Bay Area it is clear that everyone cannot get around solely via the BART system, the

CalTrain or the light rail. Likewise, it's the rare individual who can get everywhere he has to go by using the interstate system exclusively. In fact, most people rely upon a variety of infrastructure components every day to get from place to place. The systems approach takes this into account.

Technological solutions to transportation problems should be strongly encouraged.

Finally, our clean air goals (federal and state) should be a priority consideration in terms of national policy. This means that a package of federal tax incentives should be developed both for people who elect to use transportation alternatives as well as for employers who spend considerable sums of money to set up successful rideshare programs.

Once again, our transportation system is important to us, in terms of clean air, mobility and our future business climate. We appreciate the opportunity to address you on this subject.

SIERRA CLUB 730 Polk Street San Francisco, California 94109 415·776·2211

Efficient Transportation - For The Earth's Sake

Statement to the Senate Banking, Housing and Urban Affairs Committee
8 August 1990

Dr. John Holtzclaw

I thank you for looking at where our present transportation policies are taking us, and at alternatives to continued highway growth even though you have jurisdiction only over transit systems. Whatever succeeds the Interstate Highway System will be completed around 2020. Will we be stuck with massive new urban-suburban highways spawning more sprawling suburbs at the time petroleum depletion is driving up fuel prices and production costs, isolating those suburbs. A transit program combined with incentives for mixed-use infill development can stave off petroleum depletion and raise our cities' efficiency and international competitiveness.

Massive highway construction will not ease traffic congestion -- but only spread sprawl and congestion to new areas, increasing time lost in congestion, fuel consumption and smog. Newman, Kenworthy and Lyons (Attachment A, from the Sept. 1988 Search) demonstrated this definitively in Australia, where suburban traffic and growth are similar to the U.S.

But highways also have a less understood impact on consumption. Highway driven sprawl has made American urban areas thirsty for fuel, construction materials and land. For example, Phillips and Gnaizda compared a recent middle class single family tract in Davis, California with a middle class apartment house near downtown San Francisco (CoEvolution Quarterly, Summer 1980). Davis is an energy-wise university community and the tract was constructed to its state-of-the-art energy conservation ordinance.

However, as Attachment B shows, residents of the walking/transit-density San Francisco apartments drove 1/4 as much as their suburban cousins. And their multi-family houses used 40 times less land, 15 times less roadway, 50 times less lumber, 5 times less utility pipe, and much less water and fuel than suburban single-family homes. This is typical of transit-rich cities.

My recent Natural Resources Defense Council studies in the San Francisco Bay Area, conducted for the California Energy Commission, show that **every passenger mile on transit reduces auto use by 10 miles** because transit accommodates higher urban densities and more commerical activities, which afford the convenience of walking, biking or short drives to nearby jobs, shopping and recreation (Attachment C). Consequently, New York City residents, for instance, drive 1/4 the national average and use half as much total energy. Since rapid transit carries 24 times as many passengers per lane as autos, and buses 6 times as many (UMTA, Regional Planning News #99), transit consumes only 1/5 to 1/3 as much fuel per passenger-mile (Brookhaven National Laboratory 50633).

I also found that **doubling residential density reduces auto mileage by 25 to 30 percent.** So if an area's population doubles by infill instead of additional sprawl, its residents' driving goes up only 40 to 50 percent instead of doubling. These mileage reductions happen naturally; they aren't dependent on auto-restricting laws. These results have been confirmed by studies around the country.

Other impacts of sprawl and congestion are air pollution and loss of natural areas. Air pollution killed 53,000 Americans annually, the Harvard School of Public Health reported a decade ago. Its annual health care and work-time lost costs are $40 to 50 billion, reports the American Lung Association. And in the San Francisco Bay Area, according to Frederic Nichols of the U.S. Geological Survey (Science 7/2/86), 94 percent of the wetlands have been lost to development. Much of our most productive farmlands have been lost.

How have we come to this condition? We've spent and zoned ourselves into it. Federal transportation funds have favored highways over transit by more than 8 to 1, according to the Conference of Mayors. The resulting auto use consumes 2/3 of our oil and has driven our efficiency to far below that of the Europeans and Japanese. You can reverse that bias and enhance our competitiveness.

Opportunities

Public understanding of the issues is critical to these reforms. Consequently the Sierra Club urges you to:

1. Sponsor research to:

*** compare the relative impacts of highway or transit expansion (with infill development) on:**
  - **sprawl and traffic congestion,**
  - **loss of forests, agricultural lands, etc.,**
  - **consumption of energy and materials in construction,**
  - **consumption of energy and water in the new developments,**
  - **production of air and water pollution, and**
  - **the condition of the inner cities and their residents.**

*** evaluate all present subsidies to motor vehicles.**

Subsidies? Don't autos pay their way? Consulting civil engineer Stanley Hart studied the direct costs of auto use, including police and fire protection, paramedics, the prosecutor's office, and engineering, planning and capital outlays for road projects, from 1965 to 1983 in Pasadena, California, and the revenues generated by the auto for the city (see Attachment D from "California Transit, July 1986).

Hart estimated that the city and county subsidizes the motorist (direct costs minus revenues) 40 to 50 cents per gallon of gas. Nor is this all the subsidies for the automobile! Local governments and taxpayers provide free parking and make up property taxes not paid by freeways. Individuals and businesses pay for smog-related health and work-loss costs and damage to crops and structures and for time lost to traffic congestion. Corporations provide free parking.

2. Along with the Transportation and Commerce Committee, adopt a program that includes:

*** full cost pricing of auto use -- smog fees, gas taxes, auto sales taxes, licensing and registration fees, toll roads and elimination of subsidized parking to recoup the full cost to society for roads and autos.** The Bay Area Environmental Forum, an organization of major industrial, political and educational leaders, has endorsed a similar transportation program, Attachment E.

*** use of these taxes and fees to build and operate adequate transit systems -- especially rail, with the remainder used to compensate cities, counties and states for their auto-related costs and reduce local sales and property taxes. Assure that transit funds are wisely used by requiring recipients to zone for compact mixed-use development.**

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Does Free-flowing Traffic save Energy and lower Emissions in Cities?

P.W.G. Newman, J.R. Kenworthy and T.J. Lyons School of Biological and Environmental Sciences, Murdoch University, Murdoch, WA 6150

Traffic and corridor studies from Perth are analysed together with an international comparison of 32 cities to seek an answer to this question. The data suggest that free-flowing traffic does not save energy or lower emissions overall in a city contrary to previous assertions. This is despite the apparently clear advantages in efficiency for individual vehicles. The reasons for this are examined in terms of travel distances, alternative modes and suboptimal vehicle usage due primarily to the land use structure of the city. The effect of congestion on time savings is also assessed. Some implications for urban road project justification and traffic engineering practice are examined.

Most motorists are aware that automobiles are highly fuel-efficient in smooth, free-flowing traffic and poorly fuel-efficient in stop–start, congested traffic. They are also aware that emissions follow the same pattern. Predictive fuel and emissions models have been developed for vehicles based on the traffic conditions in which instrumented research vehicles are driven (Chang and Herman 1978; Bowyer *et al* 1985). The key parameter in both fuel and emissions models is average traffic speed: the higher the average traffic speed the lower the fuel use and emissions in individual vehicles (for fuel this applies up to average speeds of about 60 km/h). Thus Chang and Herman for example claim: 'We expect that improvements in traffic quality can reduce travel time which, in turn, can directly produce a reduction in fuel consumption' (1978, p. 75). Hence for a number of years there has been a strong research basis for the belief that free-flowing traffic saves fuel and lowers emissions.

We have argued in detail elsewhere (Newman and Kenworthy 1984) that this research on instrumented vehicles is useful in as much as it provides a good explanation of the way fuel is used and emissions are produced by vehicles in urban traffic. This can assist, for example, in comparing scientific advances in motor vehicle engineering, new fuels, new engines and various add-on modifications to vehicles. However, when the results of this work are assumed to apply at a total urban system level, for example, improving average speeds will reduce fuel and emissions overall in a city, there are very serious questions to be asked. For example:

- Does free-flowing traffic cause increased vehicle use through decreases in other travel modes and changes in land use?
- If such increases occur, do they outweigh the gains in fuel efficiency, emissions and time savings for individual vehicles?
- Can traffic research be integrated into urban planning research to resolve this apparent trade-off between gains through vehicle efficiency versus losses due to increased vehicle use?

These questions need to be answered because it is now an established goal to provide smoother, freer-flowing urban traffic systems for reasons of energy conservation and emissions abatement. Most major cost–benefit models justifying road proposals incorporate significant community benefits from fuel savings, time savings and sometimes emissions reductions based on improvements in average speed. Such models have had virtually universal acceptance for around 40 years. Road lobby organisations constantly feed the general public a view that more urban freeways will be in the national interest to conserve valuable oil reserves (RACV 1982; Solloway 1985) and their view is reflected in the policy statements from the National Association of Australian State Road Authorities (NAASRA 1984):

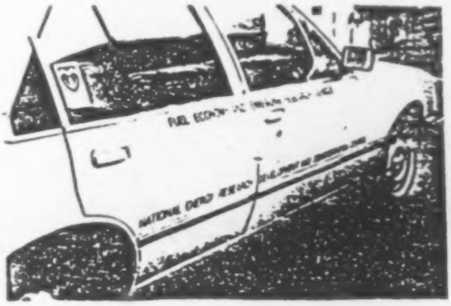
> In 1981, eight per cent of travel was on roads with very low peak hour travel speeds of less than 20 kilometres per hour. Almost half was on roads with peak hour speeds less than 40 kilometres per hour. Projections of future travel speed show that a 25 per cent funding increase would be required to prevent a reduction in already low travel speeds. A 25 per cent increase would also save 110 million litres of fuel, representing a large proportion of all savings which could be achieved by any practical means. (p. 4)

However, such statements do not question whether improved individual vehicle efficiencies from free-flowing traffic will automatically mean fuel savings and emissions reductions overall in cities. The question needs to be asked and answered.

This paper attempts to do that by drawing together several of our recent traffic studies published elsewhere as separate pieces of research. The data are from Perth and from an international comparison of transport and land use in 32 principal world cities. As the main studies are documented in detail elsewhere the methodologies used are only briefly outlined here. The key feature of all these studies is an attempt to link traffic engineering data with a broader urban planning context.

Evidence on the Effects of Free-flowing Traffic

The Perth Driving Cycle Study Between 1980 and 1983, Perth was the subject of an intensive traffic study using a computer-instrumented vehicle (Kenworthy *et al* 1983). The purpose of this study was to develop a driving cycle by collecting a range of representative driving pattern data on all types of roads from the central city to the urban fringe. The instrumented vehicle was used to 'chase' vehicles in morning, evening and off-peak periods



traffic conditions, the fuel consumed by the instrumented vehicle in all these conditions was recorded using an accurate fuel meter. This data set which amounted to over 3000 km of urban driving is one of the most detailed collections of data on urban traffic conditions and vehicular fuel consumption collected to date.

As part of this traffic study a comprehensive survey was also made of the broader land use and transportation characteristics of the Perth metropolitan area, including per capita gasoline use on a small zone basis from central to outer areas (Newman *et al* 1985). Hence, it was possible to combine the detailed traffic data involving fuel consumption of individual vehicles with an understanding of the land use patterns and transportation processes that influence resulting per capita gasoline use (Newman and Kenworthy 1988).

The results depicted graphically in Fig. 1 show that there is a trade-off in energy terms between attempting to improve the fuel-efficiency of the traffic system through raising average speeds and trying to foster an urban system which is more fuel-efficient overall. Congestion diminishes significantly from central to outer areas (e.g. average speeds improve 54%) and hence vehicle fuel efficiency improves; however actual per capita fuel use by residents in these areas increases significantly. Vehicles in central areas have 19% lower fuel efficiency than the Perth average due to congestion but the central area residents use 22% less actual fuel, and conversely, congestion-free outer suburban driving is 12% more fuel efficient than average but residents use 29% more actual fuel. It is important to stress that the per capita fuel data incorporate the factor of vehicle fuel efficiency due to traffic conditions.

Why is this so? The obvious link is through the different land use, and the travel patterns induced by these, in the various suburbs. Thus land use/modal split data were examined for each area. These showed that as the distance from the central business district (CBD) increases:

- Density lowers from 25 to 6 people per ha
- Trip lengths increase from 7 to 13 km (for work) and 5 to 9 km (for all trips)
- Public transport service declines from 12 to 0.4 km of service per ha of urban land
- Trips by car increase from 61 to 78%.

This analysis also showed that gasoline usage patterns by suburb do not follow income patterns, i.e., density and income are not correlated nor are travel patterns and income. In other words the land-use is fundamental in determining how much people use a car.

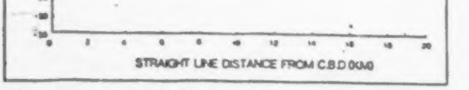


Figure 1. *The trade-off between traffic fuel efficiency and urban system fuel efficiency in Perth, WA.*

The same picture was observed through an analysis of a large household travel survey collected in Perth by the State Government; it was found that for trips by people living at increasing distances from the CBD:

- the average speed of trips increases from 40 to 50 km/h:
- the vehicle efficiency improves by about 10%; and
- the total fuel consumed per capita increases by about 80%.

It appears that the feedback parameters such as land-use factors and modes of travel exert an influence on gasoline use far in excess of the fuel efficiency of vehicles as determined by traffic conditions. In other words, in the congested but denser and more compact central and inner areas travel distances are shorter for all modes and there is greater use of public transport, walking and cycling. In outer areas densities of development are low, travel distances are long and a much higher proportion of travel is by automobile with less public transport, walking and cycling.

The analysis was extended to include emissions (Kenworthy *et al* 1987). Like fuel consumption, emissions of CO (carbon monoxide) and HC (hydrocarbons or unburnt gasoline) from automobile tailpipes are dependent upon the average speed of travel with obvious improvements as average speed increases. NO_x (nitrogen oxides) are only slightly dependent on vehicle speed (Kent and Mudford 1979). The data show the same pattern as fuel consumption: vehicles driven in the Perth central area at 34 km/h average speed have 17–27% more HC and CO emissions, respectively, per kilometre of travel relative to the average for Perth but residents of the area actually generate 19–21% less total CO and HC, respectively, due to their smaller use of the automobile and

A 2

greater use of other modes. Conversely in outer areas there is a positive benefit in terms of emissions from vehicles with the average speed of 32 km/h yielding 9–16% lower emissions per kilometre (HC and CO, respectively) than the average for Perth; however, residents of the outer suburbs actually generate some 24–27% more CO and HC, respectively, than the average for Perth residents due to their longer auto travel distances and less use of other modes.

As with fuel, a pattern emerges of a significant trade-off between attempting to control emissions through improving traffic flows and the overall effect this has on the actual amount of emissions produced. In other words higher average traffic speed appears to spread the city, creating lower density land-use, a greater need for cars, longer travel distances and reduced use of other less polluting or pollution-free modes. The benefits gained in terms of less polluting traffic streams appear to be overwhelmed by the sheer amount of extra travel and the resulting bulk of emissions.

Thus the evidence from the Perth Driving Cycle study suggests that in Perth at least, free-flowing traffic is associated with increased fuel use and increased emissions.

Corridor studies in Perth Supportive evidence on the mechanism as to how this effect of free-flowing traffic works its way back into greater use of the automobile and also non optimal use of the automobile, are provided by some corridor studies in Perth.

The effects of free-flowing traffic on public transport use An attitudinal survey was conducted of bus and train passengers who use a transportation corridor in Perth (Kenworthy and Newman 1985). The aim of this study was to assess the importance of road congestion in the decision to use public transport. In particular the survey attempted to find out how many people might transfer from public transport to cars should congestion be significantly reduced or eliminated in the corridor. The survey showed some 17% of bus passengers and 11% of train passengers would transfer if the congestion was eased. It was calculated that if only half of these passengers actually did transfer to cars, the extra gasoline use would be enough to cancel out the savings from a computer-coordinated set of traffic signals along the corridor designed to smooth out traffic flows.

Bus patronage in Perth was examined in freeway corridors and corridors without freeways to see if congestion levels were impacting on patronage. At the time of the survey the freeways were new and traffic was free-flowing. Freeway-related bus services in Perth were found to be declining faster in the average number of passengers carried per service than other bus services, some of which in the relatively congested inner areas were improving their passenger-carrying performance (Kenworthy and Newman 1985). Since then freeways in Perth have become significantly congested at peak hours and public transport patronage in those corridors has risen concomitantly.

The effects of free-flowing traffic on vehicle efficiency Not all free-flowing traffic improves the fuel efficiency of a vehicle. As mentioned before, vehicles are generally engineered to perform in a fuel-optimal way at speeds of around 55–60 km/h. A study in Perth was designed to find the fuel and time implications of freeway speed limits and examined optimal driving conditions in freeway and other driving conditions (Kenworthy *et al* 1986).

The study found that increases in the speed limit above 80 km/h involve progressively greater fuel penalties of up to 31% at 110 km/h for an 8 km length of freeway. Our investigation into driving patterns in Perth during 1980-83, found that Perth already has over a third of its da travel at speeds above the fuel optimal speed of 55 km (Kenworthy *et al* 1983). Using some simulated urban tri under controlled cruise conditions it was found that av age speed alone is actually a misleading criterion, even assessing the energy efficiency of a road system *per* This is because higher average speeds are often achiev by merely increasing the potential for higher cruise spee between stops. Thus two trips can have the same avera speed with very different fuel economy, i.e., one t achieves its average speed by higher cruise speeds to off idle periods and has much poorer fuel economy than a t which has low cruise speeds but fewer stops and i periods.

This Perth study suggests therefore that traffic polic which encourage further increases in cruise speeds such increasing speed limits, freeway building and road wid ing will be counter-productive for energy conservation. the other hand, traffic policies that minimise stops a idling periods while keeping cruise speeds close 55 km/h will save fuel. This means that for energy c servation, roads and signal systems should be designed encourage low travel speeds with fewer stops and shor idle periods. Policies that seek to achieve a 'blank increase in average speeds by increasing cruise speeds (raising speed limits or building more freeways), will m than likely be counter-productive in energy terms.

The Perth evidence suggests that the conditions un which a policy of constrained cruise speeds might be m practicable would most likely include:

(1) Higher traffic levels along arterial roads with co puter-linked traffic signals;

(2) A more compact urban form where travel distan are much shorter and more suitable to a reductior cruise speeds.

Higher density activity also means more intensively u roads with lower cruise speeds so that if at the same ti stops can be lowered it would lead to better fuel efficier As already shown, higher density areas have lower us transport energy because of greater walking, cycling public transport and shorter trip lengths. It may theref be possible to optimise land-use and traffic systems as as energy conservation is concerned, by pursuing the sa policy of increased concentration of urban activity.

The international cities comparison The Pe studies are a powerful indicator of the relations between free-flowing traffic and fuel-emissions issues

they provide integrated data between traffic engineering and urban planning, together with evidence of the mechanisms behind the relationship.

However, it could easily be suggested that the Perth system is somehow different and that the relationship should not be extended to other cities. Our most recent study examines the wider situation by assessing the data on gasoline use and traffic speed in 32 principal world cities (Kenworthy and Newman 1987; Newman and Kenworthy 1987). This study is the result of 4 years of data collection and provides for the first time a uniform international data set for comparisons of urban transport and land-use.

Gasoline use and average speed Table 1 contains data on average traffic network speeds, average public transport speeds and gasoline use for the 32 cities. These data suggest that it is the cities with the highest average traffic speeds that have the highest per capita gasoline consumption. Thus free-flowing traffic is not associated with lower fuel use in this global survey. It is in fact cities with the most constrained traffic flows that have the lowest per capita gasoline use as hypothesised by us. The positive correlation between the two parameters is statistically significant.

In terms of public transport speeds, Table 1 also shows that those cities with the lowest overall public transport operating speeds have the highest energy. This is because they tend to be totally or predominantly bus-based and buses simply do not compete in speed terms with private automobiles. The range of bus speeds for the cities is remarkably small, tending to be around 20–21 km/h and never exceeding 25 km/h. On the other hand, those cities with significant rail-systems tend to have much faster overall public transport operating speeds because train systems have average speeds typically about 40 km/h and up to 55 km/h in some cases. Such systems provide very good competition to the automobile for speed of access. Thus the only high average speed which appears to correlate with low fuel use is that of public transport, not private transport.

The other obvious relationship which comes out of these data is that public transport viability is closely

TABLE 1
Gasoline use, annual travel time and average transportation speeds for 32 cities

City	Gasoline use (MJ per person)	Average speed of traffic (km/h)	Total vehicle hours per capita (cars plus public transport)	Total passenger hours per capita	Average speed of public transport (km/h)			
					Bus	Train	Tram	Overall
US cities								
Houston	74 510	51	194	318	22	—	—	22
Phoenix	69 908	42	218	297	23	—	—	23
Detroit	65 978	44	262	321	21	42	—	22
Denver	63 466	45	210	268	21	—	—	21
Los Angeles	58 474	45	201	325	21	—	—	21
San Francisco	55 365	46	207	328	22	45	15	29
Boston	54 195	39	226	[illegible]	18	45	20	30
Washington, DC	51 241	39	208	330	18	40	—	26
Chicago	48 246	41	187	304	18	47	—	37
New York	44 033	35	172	272	15	35	—	31
Average	58 541	43	208	310	20	42	18	26
Australian cities								
Perth	32 610	43	155	291	22	35	—	24
Brisbane	30 653	48	137	272	23	37	—	31
Melbourne	29 104	48	124	243	21	33	18	28
Adelaide	28 791	43	143	276	21	45	28	29
Sydney	27 986	39	141	289	20	45	—	37
Average	29 829	44	140	274	21	39	23	30
Canadian city								
Toronto	34 813	?	?	?	20	34	16	25
European cities								
Hamburg	16 671	30	150	299	22	36	—	31
Frankfurt	16 093	30	144	291	22	44	17	37
Zurich	15 709	36	123	285	20	46	15	33
Stockholm	15 574	30	110	212	25	36	26	32
Brussels	14 744	?	?	?	20	38	17	27
Paris	14 091	28	102	213	13	45	—	40
London	12 426	31	86	207	18	38	—	31
Munich	12 372	35	96	202	20	55	17	44
West Berlin	11 331	28	101	265	20	32	—	27
Copenhagen	11 106	45	80	189	24	54	—	38
Vienna	10 074	30	93	235	19	38	17	23
Amsterdam	9171	39	78	206	18	57	15	36
Average	13 280	30	106	235	20	43	18	33
Asian cities								
Tokyo	8488	21	104	286	12	40	13	38
Singapore	6003	30	29	162	19	—	—	19
Hong Kong	1987	21	24	160	15	31	10	17
Average	5493	24	53	203	15	36	12	25
USSR city								
Moscow	380	45	8	+138.1	21	41	18	> 37
Correlation coefficients with gasoline use		0.703*	—	—	0.273	0.018	−0.260	−0.376*

*Indicates significance $P<0.05$. Correlations exclude Moscow.

A 4

when densities are a minimum of 30–40 people per ha both within cities and across cities as a whole.

The range of fuel consumption in the survey is very large with Australian cities around half the per capita gasoline use of US cities, more than double European cities and six times the level in Asian cities. This variation in gasoline use was analysed and the following general relationships found:

- Not more than half of the variation can be explained by vehicle size, income and gasoline price
- There is a close association between low urban energy use and density of jobs and residents and central city strength
- High gasoline use is also closely linked to the degree to which the city provides automobile infrastructure in the form of roads and car parking.

Thus the international cities comparison suggests that a policy of free-flowing traffic is not a policy for energy conservation, rather it creates greater car dependency in cities through progressively less dense, less centralised land-use patterns, greater overall provision for cars and diminishing viability of public transport, walking and bicycling.

Travel time Urban traffic congestion is generally attacked on the basis of its disbenefit in extra travel times. Table 1 contains data from the international cities comparison on travel times expressed as total average vehicle hours and passenger hours per capita (i.e. time spent in cars and public transport). The data show that there are much higher total per capita vehicle and passenger hours in the American and Australian cities where average road network speeds are high, compared to the European and Asian cities where traffic is much more congested.

The difference in travel time appears to be made up for by greater time spent walking (and cycling) in European and Asian cities so that the travel time budget for all cities is probably roughly the same. However, the data indicate that despite the massive infrastructure for motorised private travel there is no obvious travel time savings in those cities with a large commitment to the automobile — people on average just spend more time in cars.

Perth cf. New York Further verification of how congestion relates to transport and land use was considered possible if the kind of detailed study within Perth could be compared to another city. Although not as complete, some data were collected on New York which is a very different type of city to Perth as it has extreme levels of congestion in its high density central and inner areas. It thus offers the potential for some comparison at the other end of the traffic spectrum from Perth.

Table 2 presents data on New York in terms of gasoline use, average traffic speed and urban density for the central, inner and outer areas as well as the whole city. As with Perth the overall energy efficiency of New York clearly improves as congestion gets worse, despite the obvious deterioration in the energy efficiency of the traffic system that would occur from New York's outer areas to the centre of Manhattan.

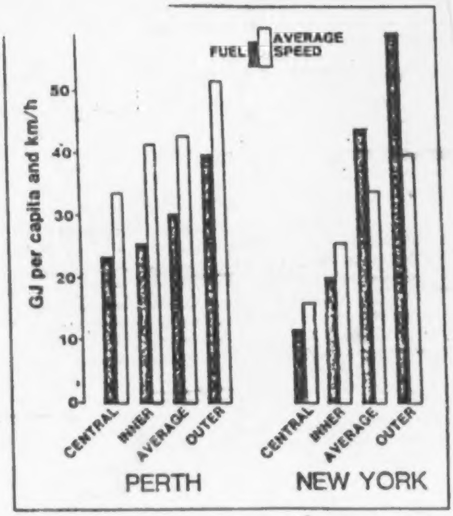


Figure 2. *Comparison between Perth and New York showing how gasoline use per capita and average traffic speed varies across the two urban areas.*

Figure 2 shows the contrast between Perth and New York. The same qualitative pattern is evident showing lower overall fuel use associated with slower traffic speeds and directly linked to the level of urban density. However, in New York it is even more extreme. Further detailed studies on New York or on a European or Asian city would help to delineate the patterns developed here. However, the evidence suggests that other cities, most of which have greater congestion than Perth, are likely to have an even more positive relationship between congestion and the fuel efficiency of their city with land-use being the key parameter linking the two.

Policy Implications

Urban road project justification The cost-benefit analyses of major road projects usually incorporate time savings, fuel savings and occasionally emissions in their justification. The research outlined here suggests that in urban situations the simple assumptions used in these models are probably wrong. Abelson (1986) in his recent review of the economics of roads seriously questions the

TABLE 2
Gasoline use, average traffic speed and urban density by city region in the New York Tri-State Metropolitan Area

Area	Gasoline use (MJ per capita)	Average traffic network speed (km/h)	Urban density (persons/ha)
Outer area New York	59 590	40.1	13
Whole city (New York Tri-State Metro. area)	44 033	34.9	20
Inner area (City of New York)	20 120	25.8	107
Central city (New York County incl. Manhattan)	11 860	16.1	251

conceptual and data basis of these models, although he only considers the effects on individual vehicles.

As millions of dollars of investment are directed annually into urban roads it would appear to be essential for their justification to be valid. The research conducted here would suggest that fuel (and emissions) would probably be a cost and not a benefit in any complete calculation that involved the whole city. As an interim measure, while better cost–benefit models were being developed, it would seem prudent not to include fuel (or emissions) in road project justification.

Similarly, with time savings it is not a simple matter of predicting vehicle times before and after a new road. What appears to be necessary is a more dynamic feedback process built into land-use/transport modelling which incorporates the fact that new roads will influence land-use and in turn detract from initial predicted time savings.

Traffic engineers and congestion Traffic engineers must daily confront the problem of how to assess the impacts of traffic congestion and what solutions to offer. Their responses are conditioned by a general approach that traffic congestion is always a negative thing and must be eliminated as far as possible; the way they deal with congestion is necessarily determined by the way they think about it. The data in this study and especially the broad perspective gained from the international comparisons offer an alternative way of viewing congestion: that rather than being something which must always be eradicated, congestion can actually be creatively exploited as a tool in helping a city progress towards lower car dependency and lower energy use through a better balance between cars, public transport, walking and bicycling. This concept has sometimes been referred to as 'planned congestion'.

Developments along these lines occurred in Europe in the 1960s when it was recognised that building more large roads was destroying their cities and not ultimately helping the congestion situation either (Hall and Hass-Klau 1985). This was followed by a change of priorities in transportation policy towards public transport and something of an acceptance that certain levels of congestion are a fact of life in cities. The same awareness has become much more common in Canadian cities in the past decade (Cervero 1986).

A similar recognition would appear to be needed in Australia, at least with regard to major new roads in urban areas. 'Planned congestion' could be seen as an opportunity to help contain the outer growth of cities, develop more efficient, concentrated nodes of urban activity, shorten travel distances and in particular it could give priority to public transport. This approach has many benefits including the reduction of transport energy use in our cities. Obviously this approach would not preclude managing or alleviating congestion using established traffic management techniques, especially where environmental amenity or the desirability of living in neighbourhoods was at stake. The Dutch Woonerf concept has been used to manage traffic in an attractive way for neighborhoods.

This approach would not interfere with efforts to optimise traffic systems for fuel efficiency by reducing stops and idle periods without raising cruise speeds and average speeds. However, it would mean a fundamentally different approach to the assessment of major urban traffic problems taking into account the positive benefits of congestion as outlined above. Thus the role of the traffic engineer can change from one of being primarily concerned with alleviating congestion to one of creatively managing congestion. This would place the role of traffic engineers in a much broader context where all actions are closely linked to the broader transportation and land-use planning goals of the city.

Conclusions

The studies [illegible] traffic does not lead to savings in fuel or time, or lowerin of emissions in a city overall. The means of achievin these savings appear to lie in more fundamental transpor and land-use planning, especially the role of urban densit and how it relates to travel distances and use of othe modes. This understanding can enable congestion to b used as a positive force in improving cities for man purposes including energy and emissions consider ations.

Acknowledgment

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John Holtzclaw

The Conservation Potential of Compact Growth

Do studies of urban growth confirm the contention that compact areas help preserve the environment and conserve energy? Let's consider three studies.

The first study looks at the educated, innovative and energy-wise residents of the university community of Davis, California, near Sacramento. In the 1970s they rewrote their building code into an energy-conserving model for low density developments, primarily single family. Stringent energy conservation and use of solar efficient designs are mandated.

Yet, when Michael Phillips and Robert Gnaizda compared a recently constructed middle class single family tract in Davis with a middle class apartment house near downtown San Francisco, they got the results in Table 1. The single-family home dwellers drove nearly 4 times as much! And transportation consumes nearly 2/3 of the nation's oil. The run of the mill urban apartments use less than 1/5 as much heating fuel as the energy-efficient Davis single-family houses. Sharing walls shares and saves heat. Exposing less wall and roof area to the sun reduces summer air conditioning loads. Residential and commercial heating, cooling, lighting and motors consume 20 percent of our country's oil. And the single-family houses consumed 40 times as much arable land--translated, that usually means the farmlands, ridgelands and wetlands we are working so hard to preserve. And they required 5 times as much utility pipes.

The second study is an extensive analysis of two models of suburban growth. In their 1974 study for the Council of Environmental Quality (CEQ) and Housing and Urban Development (HUD), "The Costs of Sprawl," the Real Estate Research Corporation compared typical suburban single-family housing with suburban "high rise apartments."

However, at 33 units/acre, these "high rise apartments" are actually less dense than many older, comfortable urban neighborhoods. Densities of 50 to 100 units/acre are common with 3 to 6 story apartments, and to 400 with occasional highrises and no front-yard setbacks. Examples are the popular Nob Hill and Russian Hill areas of San Francisco traversed by cable cars climbing halfway to the stars. Since the study is of suburban "high rise apartments" with little transit, much land set is aside for parking lots, driveways and lawns.

Even these modest "high rise" densities save considerable materials and resources when compared with single family dwellings. The single family houses consume 4 times as much land for streets and roads and 10 times as much for the houses themselves. The single family houses use nearly 6 times as much metal and concrete, the mining of which threatens many of our natural areas. They consume over twice as much gas and nearly twice as much electricity, and produce over twice as much air pollution with their autos.

And third, let us take a high profile example: New York City. Even with its bright lights and cold climate, it uses half as much energy per capita as the US average, reported the New York Times on 15 November 1981. Such are the benefits of transit and walking. All that, and great theatre, concerts, cheap ethnic restaurants, libraries and stores. Similarly, Europeans and Japanese, with compact urban areas, consume 1/4 to 1/6 as much gasoline per capita as we do.

But, compared to the gluttonous appetite of surburban sprawl, you can be mucl less dense than York City and still conserve substantial amounts of land, material and energy, as San Francisco densities of Table 1 show. Savings start occuring with densities which make transit service viable, frequent and convenient, so that people generally walk, bicycle and use public transit rathe than driving, especially for commuting. A compatible mix of housing, commercial enterprises and industry helps. Homes are close to jobs, stores, restaurants, theatres, bars and recreation. The vitality and liveliness of this mix and density increase a city's attractiveness while cutting its consumption.

Table 1. Phillips-Gnaizda

Resources	City Apartments	Village Houses	Ratio
Copper pipe	2,000 ft.	10,000 ft.	5
Arable land	5,000 sq.ft.	200,000 sq.ft.	40
Roadway	1,000 sq.yds.	15,000 sq.yds.	15
Concrete	17,000 cu.yds.	9,000 cu.yds.	1/2
Lumber	25,000 board ft.	1,200,000 board ft.	50
Utility pipe	450 ft.	2,500 ft.	5
Maintenance			
Daily postal delivery	12 ft.	3,000 ft.	300
Landscaping water	500 gals/day	35,000 gals/day	70
Heating	5,000 BTU/day	27,000 BTU/day	5
Individual auto	25,000 miles/month	90,000 miles/mo.	4

Phillips & Gnaizda, "New Age Doctrine is Out to Lunch on Three Issues," CoEvolution Quarterly, Summer 1980.

Table 2 The Costs of Sprawl (1974 $)

	Single family (3 units/acre) suburban location	Moderate density* condos (33 units/acre) suburban location	Ratio
Streets and roads	3080 $/unit	801 $/unit	4
Utilities (metal and concrete)	5483 $/unit	958 $/unit	6
Water consumption	400 gal/day	190 gal/day	2
Gas	156 therms/mo.	66 therms/mo.	2
Electrical	10,481 KWh/yr.	6222 KWh/yr.	2
Air pollution from autos			2

* E "high Rise Apartments," the highest suburban density studied. (Central city 4 - 6 story walkups with no front yard setbacks reach about 100 units/acre). In urban areas streets, roads and utilities will already be in place, but "infill" might require some enlargement.

"The Costs of Sprawl," Real Estate Research Corporation, 1974.

STATE OF CALIFORNIA ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of: Preparation of the 1990 Conservation Report (CR 90)	Docket No. 89-CR-90

EXPLAINING URBAN DENSITY AND TRANSIT IMPACTS ON AUTO USE

Presented by

NATURAL RESOURCES DEFENSE COUNCIL
AND
THE SIERRA CLUB

19 April 1990

John Holtzclaw, Ph.D.

EXPLAINING URBAN DENSITY AND TRANSIT IMPACTS ON AUTO USE

Executive Summary

This study evaluates the reduction in driving in the San Francisco region resulting from higher residential density and neighborhood businesses, and improved transit service. It also estimates potential savings in fuel, pollutant emissions and auto ownership costs from such reductions.

As the housing, population and commercial densities and transit service decrease the Vehicle Miles Traveled (VMT) per capita and per household increase. Doubling residential or population density reduces the annual auto mileage per capita by 25 to 30 percent and the annual auto mileage per household by around 30 percent. Consequently, if the population of an area doubled wholly by infill its VMT would likely increase only by 40 to 50 percent, rather than the 100 percent it would increase if the city grew in its present form. Alternatively, doubling population at low density, halfing the average density, would likely increase average auto mileage by 167 to 186 percent.

Odometer readings taken during biennial auto emissions (smog check) inspections, required for Californians living in polluted air basins, were used to calculate the annual mileages for five communities within the San Francisco region, as well as for large counties elsewhere in California and for the state. The San Francisco region communities give a wide range of the variables of interest:

* Nob Hill to Fishermans' Wharf (northeast San Francisco) - somewhat densely settled, richly served by neighborhood business and transit.
* San Francisco (all) - moderate to dense settlement, neighborhood business and transit service.
* Rockridge (north Oakland - south Berkeley) - moderate settlement density, neighborhood business and transit service.
* Walnut Creek (suburban) - low to moderate settlement density, neighborhood business and bus service, but with two BART stations.
* Danville - San Ramon (suburban) - low settlement density, neighorhood business and little transit service.

Comparing the extremes, the Nob Hill area has 31 times higher net household density, 26 times higher gross population density and 198 times higher local serving job density than Danville-San Ramon, while only about 1/3 the auto ownership per capita and 1/4 the auto ownership per household. The other communities fall within these extremes, except for Walnut Creek's auto ownership per capita, and vary uniformly in the order presented. Comparing communities shows that the higher the population, household or local serving job density, the lower the auto ownership rates.

MIXED USE + DENSITY + TRANSIT = CONVENIENCE & MOBILITY
= LESS DRIVING

The lowest annual mileage per capita is in the Nob Hill area, with a big increase to all of San Francisco, a sizable increase to Rockridge and a smaller increase to Walnut Creek and another large increase to Danville - San Ramon, which is 3.8 times higher than the Nob Hill area. The annual mileage per household follows the same pattern but the spread is even more dramatic. Danville - San Ramon's mileage is 5.4 times that of the Nob Hill area. Comparing Walnut Creek with Danville - San Ramon shows a substantial benefit of its BART service even though BART has been open only 13 years: Walnut Creek has over twice the density, 3 to 4 times the local serving jobs, 25 percent less auto travel per capita and 45 percent less auto travel per household.

Density and 1988 Auto Use

	Net HH Density (hh / res acr)	Gross Pop Den (people / tot acr)	Gro Loc Ser Job Dens (rt&srv job / tot acre)	Annual VMT / cap	Annual VMT / hh
Nob-Rus-Chin-N Bea -Tele-Fish Wharf	117	52	83	2,670	5,735
San Francisco	32	23	8.4	5,090	11,951
Rockridge (N. Oak-S. Berk)	14	10	3.1	6,944	15,045
Walnut Creek	6.8	4.2	1.4	7,566	17,094
Danville-San Ramon	3.8	2.0	0.4	10,216	31,194
Sacramento				11,104	
Los Angeles				9,579	
Orange				10,757	
San Diego				9,468	
California				10,667	

These results are not that surprising. Higher density areas are richly served by neighborhood businesses. Residents of areas with higher density, more local serving businesses (restaurants, markets, etc.) and better transit drive less, not only because jobs are closer and more accessible by transit, but also because shopping, entertainment and recreation destinations are too. And these latter destinations comprise four-fifths of total trips and two-thirds of total mileage. Such densities can only occur where transit service is adequate to provide access without excessive congestion.

This analysis uses highly reliable mandatory auto mileage readings. Its conclusions are supported by studies based on somewhat less reliable data in:

Toronto - doubling density reduces mileage about 25%.
Chicago - doubling density reduces mileage about 30%.
British cities - doubling density reduces mileage about 25%.
New York City - doubling density reduces mileage about 30%.
Major U. S. urbanized areas - doubling density reduces mileage about 30%.

San Francisco's higher density and better transit service shorten trip lengths sufficiently to allow one mile on transit to replace ten miles of driving compared to trips in Danville - San Ramon. This savings results from the increased convenience of higher density mixed-use areas.

MIXED USE + DENSITY + TRANSIT = CONVENIENCE & MOBILITY
= LESS DRIVING = LOWER AUTO COSTS, FUEL CONSUMPTION & POLLUTION

Using the Hertz Corporation's estimates of auto ownership and operating costs per mile, the average Nob Hill area family annually spends over $14 thousand less on autos than Danville - San Ramon families. San Francisco families spend nearly $11 thousand less, Rockridge families over $9 thousand and Walnut Creek families over $8 thousand less than Danville - San Ramon families.

The average Nob Hill area resident annually burns 378 gallons (74 percent) less gasoline than the average Danville - San Ramon resident; while San Franciscans average 257 gallons less, Rockridgers 164 gallons less and Walnut Creekers 133 gallons less. These fuel savings are critical because transportation comprises 76 percent of California's oil consumption.

Compared to the average Danville - San Ramon resident, the average Nob Hill area resident emitted 5 kilograms (11 pounds) less hydrocarbons and 12 kg less nitrogen oxides, which create "smog" and ozone, and 104 kg less carbon monoxide. Similarly, in proportion to their auto mileage, San Franciscans, Rockridgers and Walnut Creekers polluted more than those from the Nob Hill area but less than Danville - San Ramon residents. Emissions reductions are critical to attainment of the federal and state air pollution standards since 60 percent of carbon monoxide and nearly 60 percent of ozone comes from motor vehicles.

Recommendations

The results of this study lead to the following recommendations:

1. Improve transit service in urban centers and along transit corridors to reap the benefits of the 10 mile reduction in auto mileage for every mile ridden on transit, when such transit use is accompanied by residential and commercial density increases.

2. Reform zoning laws to allow higher density mixed-use development in city centers and along transit corridors, especially within a half mile of stations, in order to achieve or exceed the 10 to 1 transit leverage, and 25 to 30 percent VMT reductions as the density is doubled. These reforms include:

a) Allowing a minimum of 3 to 4 story apartment/condominium structures, with commercial activities on the first floor, in centers and along transit corridors. Three to four story residential buildings can achieve net residential densities above 50 units per acre at relatively inexpensive construction and operating costs. As corridors develop higher density, higher buildings should be encouraged.

b) Zoning to prohibit urban housing construction outside presently urbanized areas.

c) Reducing or eliminating parking requirements for residential or commercial buildings as densities exceed 5 units per net residential acre to reflect the greater effectiveness of transit and reduced auto ownership and use. Figures 2 and 4 show rapid decreases in auto use as densities rise above 5 units per acre.

d) Eliminating the inclusion of garage spaces with residential and commercial space sales and rentals, where feasible, to encourage elimination of auto ownership.

3. Utilize the findings of this research to project auto mileage in land use, transportation and air quality plans, in environmental assessments, and in Environmental Impact Reports/Studies.

Figure 1

IMPACT OF DENSITY
ON ANNUAL PER CAPITA DRIVING

San Francisco Bay Area

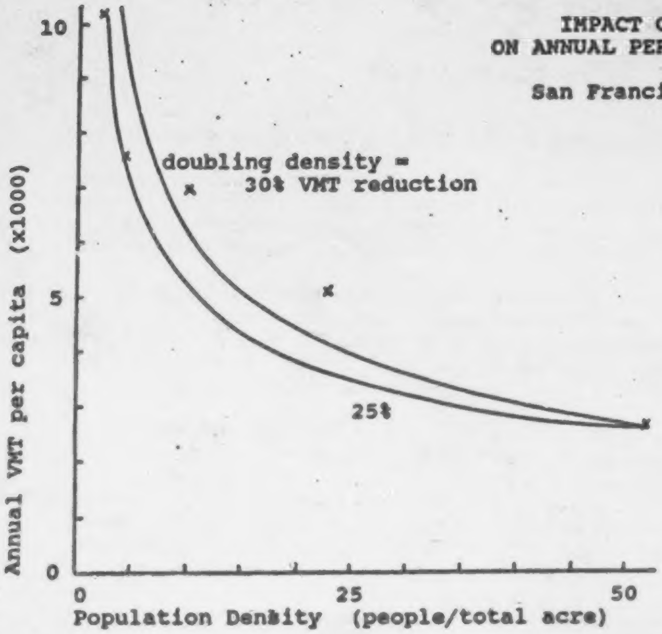
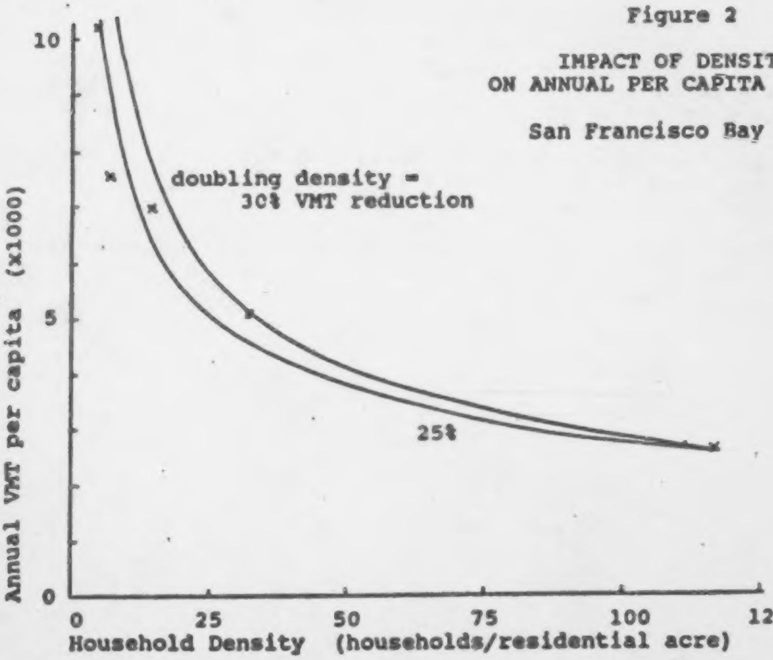


Figure 2

IMPACT OF DENSITY
ON ANNUAL PER CAPITA DRIVING

San Francisco Bay Area



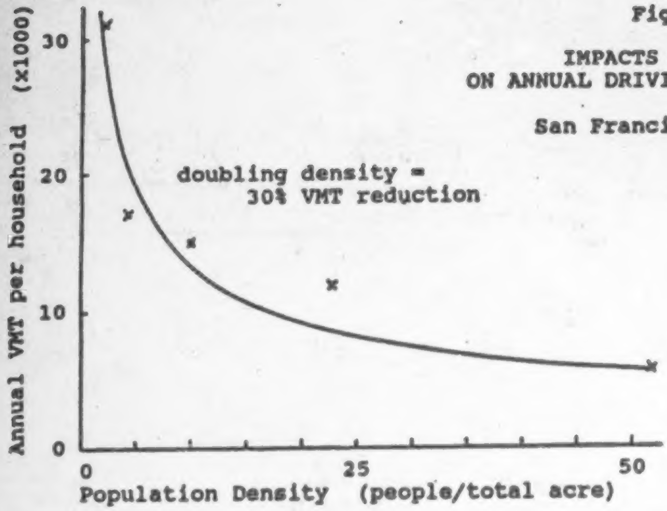


Figure 3

IMPACTS OF DENSITY
ON ANNUAL DRIVING PER HOUSEHOLD

San Francisco Bay Area

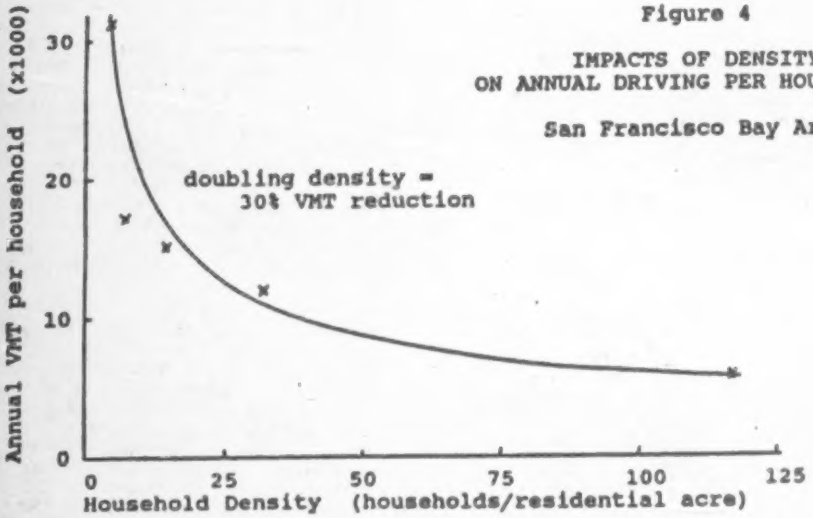


Figure 4

IMPACTS OF DENSITY
ON ANNUAL DRIVING PER HOUSEHOLD

San Francisco Bay Area

California Transit

NUMBER 4 CALIFORNIA TRANSIT LEAGUE JULY-SEPT 1986

Huge City Subsidies for Autos, Trucks

Stanley Hart

In the business world, prices for goods and services must equal production costs plus profit. When prices are less than the costs of production the firm goes belly-up. Or it finds a means of subsidizing the shortfall.

The same rule applies to city governments; while not in business to make a profit and not allowed to go broke, their budgets must be balanced. The services they provide must be paid for; it also follows that those who benefit ought to pay. This article presents evidence that an important group of users does not pay its way with respect to city-provided services.

The city furnishes services for motorists and truckers; the payment received for these services in the recent past has not covered costs, nearly bankrupting the cities. User payments, the fuel and in-lieu tax funds subvented by the State, have never been sufficient, but, because of unprecedented inflation in the sixties and seventies, the shortfall has increased to colossal proportions.

A recent study of the City of Pasadena shows that this shortfall, $1.6 millions in 1965, has steadily increased with inflation until, in FY 1982-1983, it amounted to $12 millions, an amount equivalent to an additional fuel tax of 21 cents per gallon.

[continued, page 7]

Sales Tax Unfair

Art Weber

A sales tax for highways, if approved by the voters, will be totally unfair to California's non-motorists. Driving a motor vehicle is a privilege, not a constitutional right. It should be regulated so it won't cause inconvenience to those who don't drive. Instead, non-motorists have suffered the deterioration and disappearance of local, interurban and intercity rail passenger and bus service, had their cost of living increased to pay for parking spaces they never use, and had options for housing locations limited by development and zoning policies that unfairly presume no one needs to live in walking distance of daily needs anymore. Not to mention the severe deterioration of the urban environment and safety hazards that pedestrians, bicyclists and transit users are subject to on a daily basis.

Instead of studying ways to make restitution for these inconveniences, politicians now add insult to injury by suggesting that those who don't drive should pay taxes to support expansion of a highway system that pedestrians and bicyclists are barred from using major portions of. Funding for established transit routes in urban areas is being reduced while transit funding under SB 878 (the sales tax planned predominantly for freeways) will mainly benefit sub-urban motorists (at remote park and ride lots).

Huge City Subsidies for Autos, Trucks

[from page 1]

Until 1978, the steep rise in real property values saved the cities by increasing tax yields and filling the gap. But proposition 13 brought that to a close. The State then floated the cities for several more years for as long as the existing surplus held out. Finally, the Legislature, reversing the flow of funds, actually preempted the city share of the in-lieu tax for a short period, although this has, hopefully, been returned to city use. Figure 1 shows Pasadena tax revenues for the period 1965 to 1983.

What are these automobile-related services and how much do they cost?

The City of Pasadena furnishes police and fire protection, paramedics, and the services of the prosecutor's office. It provides engineering and planning for public works and capital outlays for these projects. Each of these categories of the City budget is seriously affected by automobile and truck use.

Police Department

The Pasadena Police Department is organized into a number of special "details" for control of the automobile/truck population. These include the motorcycle patrol, details for auto theft, manslaughter, and parking enforcement. The largest category is the patrol personnel whose duties include traffic control, accident investigation, auto theft, etc. An analysis of personnel time and salaries indicates that 40% of Police Department costs are incurred in auto-related activities.

Fire Department, Paramedics, City Prosecutor

Automobile/truck accidents, fires, and garage fires comprise about 14% of Fire Department alarms. 16.4% of Paramedic calls are automobile-related. The City Prosecutor estimates that about one-third of his staff time is occupied with auto/truck cases.

Public Works

The Public Works Department includes the offices of the City Engineer, the Traffic Engineer, the Road Department, Sewers Sanitation and others. Each office is budgeted separately; thus auto-related costs are easily segregated. Capital and debt service expenditures are identified readily as well.

Administrative, Public Service Charges

Staff studies have recently determined the proportion of administrative costs to be 13.45%. This proportion was added to the total of auto-related expenditures.

Since the Pasadena study included all costs associated with streets it is appropriate to subtract an amount for the estimated annual cost of constructing and maintaining an alternative system for public service vehicle access - fire and police protection, garbage collection, freight delivery, etc.

Motorist Contributions

Motorist contributions originates from two principal sources - the fuel and the in-lieu taxes - and a third, much smaller source, the combined traffic/ parking fines, off-road vehicle fees and other special fees. Because the fuel tax is a gallonage tax and because fuel consumption is comparatively constant, the City share remained almost unchanged in actual dollars.

The in-lieu tax increased with inflation as new vehicles entered the automobile/truck population, but this was a slow process, the yield increasing far less than the inflationary rate. The yield from traffic fines, etc. depends on the level of enforcement which is not related to needs of the City budget, but to optimal requirements for public safety.

[continued, next page]

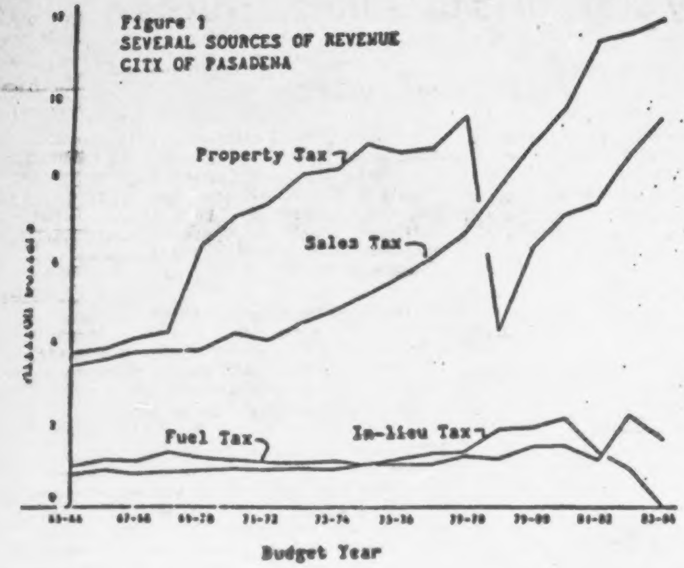


Figure 1
SEVERAL SOURCES OF REVENUE
CITY OF PASADENA

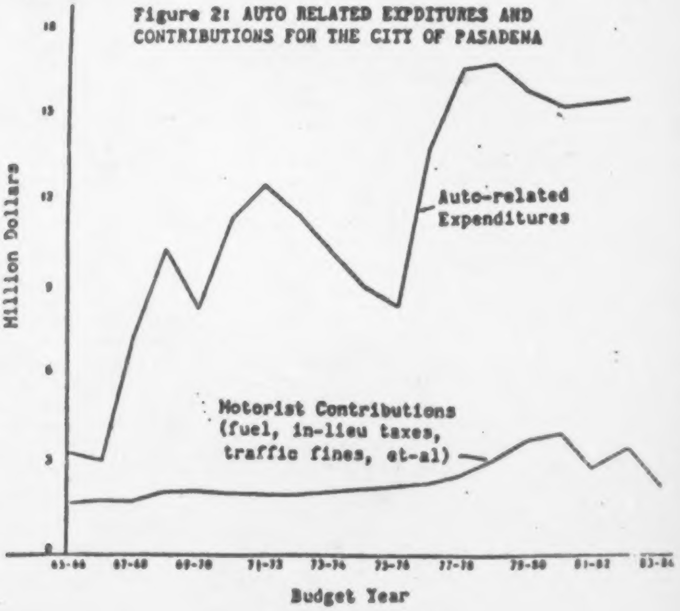


Figure 2: AUTO RELATED EXPDITURES AND CONTRIBUTIONS FOR THE CITY OF PASADENA

Summary

Following, as an example, are the results of this allocation of City expenditures for FY 1982-1983. Depending on the nature and the relevance of the available records (which, of course, were not intended for this purpose) these figures are variously accurate, but they are always conservative.

	FY 1982-1983 Auto-related costs	Portion of Dept. Budget
Police Dept.	$4,683,300	39.9%
Fire Dept.	944,900	13.8%
Paramedics	142,000	16.4%
Public Works	5,303,000	VAR
Debt Service	555,600	VAR
Capital Projects	2,097,300	VAR
Subtotal	13,726,500	
Administrative	1,846,200	13.45%
Subtotal	15,572,700	
Adjustment for pub. ser.	(-)166,000	
Motorist contribution	(-)3,723,000	
Shortfall (82-83)	$11,683,700	

Figure 2 shows the relationship between City expenditures on behalf of the motorist/trucker, and total contributions to City budgets, by year, for the period 1965, to 1983. The difference between the two curves is the measure of the City subsidy to the motoring public.

We have seen that the motorist and the trucker do not pay their fair share; the property and the sales taxpayer and the State General Fund pick up the tab. The effects of this imbalance have, in the past, lead to the tax revolt, to Proposition 13, to reduced library and school budgets, to reduced street repair and other city services. While the fuel tax has increased marginally in the recent past, the increase has been far less than would be justified by automobile/truck-related costs.

But the troubles of city administrators may be among the least of the effects arising from this skew in municipal finances. The magnitude of the shortfall (or subsidy, as seen by the motorist), when county government shortfalls are added, is probably 40 to 50 cents per gallon. If Pasadena is not atypical, the nationwide subsidy derived from local government is $60 billion annually or about 2% of the gross national product.

Nor is this all; there are huge subsidies for free parking, corporate automobiles and tax-weighted perquisites furnished by retail business and industry avid for clients and employees. The total must amount to hundreds of billions annually; $2000 to $5000 per vehicle. Additional costs to society include lost property taxes when land is converted to freeways and the damage resulting from pollution.

Sophomore economics instructs us in the mysteries of demand/supply/price relationships; no vast intellectual leap is needed to understand that a subsidy of this magnitude will have a significant effect on the rate of purchase and use of automobiles and trucks.

Our love affair with the automobile - it's not passion, but cash, that plays the critical role.

News Briefs

The Orange County Transit District recently ran a series of full-page newspaper ads proudly proclaiming that "it takes more than buses to move 260,000 people every day." Pictured above this phrase are four rows of diesel buses, a row of vans and three rows of automobiles. [CTL would suggest instead rows of trains, light rail vehicles, automated guideway transit, trolley buses, bicycles and pedestrians with the caption "It takes more than TSM, ridesharing, and diesel buses to move 260,000 people every day"]

OCTD's ads are designed to promote its ridesharing service, Dial-a-Ride and the new carpool lanes on the Costa Mesa (55) freeway. Transit currently accounts for less than 1% of total daily trips in the county and the district's five year plan projects no increase in that figure. [CTL note: carpools and vanpools, while better than solodriving, are not public transit. They do not provide the flexibility of transit].

MARKET-BASED SOLUTIONS TO THE TRANSPORTATION CRISIS: APPLICATION

prepared for the
Bay Area Economic Forum
by the Forum's
Transportation Task Force

February 1990

The Bay Area Economic Forum was formed in [illegible] to bring a regional perspective to economic issues facing the Bay Area. Through the Forum, leaders in government, business, labor and higher education join forces to develop and implement policies that promote the long-term economic vitality of the Bay Area.

847 Sansome Street
San Francisco, CA 9411
[illegible]
FAX [illegible]

MARKET-BASED TRANSPORTATION SOLUTIONS FOR AIR QUALITY

SUMMARY

The Bay Area Economic Forum offers its recommendations for transportation control measures (TCMs) to meet air quality standards mandated by law. The mandates will require an estimated reduction of 35% in motor vehicle emissions by 1997, which means that drastic measures must be considered.

The Forum urges reliance on economic incentives that are typical of a free market economy, measures that give individuals economic reasons to reduce air pollution. By directly linking the source of pollution with payment for the pollution, the Forum approach steers people toward less-polluting behavior, while maintaining freedom of choice. Revenues generated by the measures can fund transportation improvements in the same corridors (such as increased transit and carpool lanes) and to remedy any equity problems.

The Forum recommends against extreme regulatory measures such as driving restrictions and capacity restrictions, because they would endanger the region's economy and are excessively bureaucratic, expensive, or fail to address the basic causes of the problems.

Each proposal is rated on five criteria: (1) impact on air quality, (2) impact on the economy, (3) impact on mobility, (4) implementation/feasibility, and (5) political and public acceptability. Recommended measures include:

Primary Recommended Measures: Incentives to directly reduce emissions.

1. Smog fee. Charge a fee based on emissions level of each vehicle.
2. Enhanced vehicle inspection and maintenance program. Reduce emissions by tougher standards and requirements for compliance.

Secondary Recommended Measures: Incentives which reduce emissions indirectly through reduced trips and vehicle-miles.

1. Higher bridge/road tolls, especially during peak hours.
2. Higher gasoline tax.
3. Employer-based financial incentives, including employee travel allowances and parking charges.
4. Regional network of high-occupancy vehicle lanes.

Political acceptability. We acknowledge that our recommendations will be difficult to accept politically. But it is likely that any alternative proposals, if they are serious efforts to meet the goals, will be even more difficulty politically. The recent earthquake has perhaps changed the threshold of political acceptability by opening up more possibilities that may have previously been dismissed as impossible.

Fairness considerations favor our recommendations, because — unlike most competing proposals — the generate revenues to address potential equity problems. The fundamental equity issue is whether the polluter should pay. Our measures closely link payment to solve the problem with the pollution source. Many other measures break the link between pollution source and payment, and the penalize the low-income driver more, but indirectly through higher prices, taxes and lost economic opportunity. Economic incentives address other equity issues, such as equal treatment for all employees, while regulatory measures tend to place most of the burden on only a small segment of drivers, based on who they happen to work for.

Employer-based commute programs are viewed as measures which have potential to make a contribution. But they can work only if accompanied by substantial improvement in the commute options employers are asked to promote.

TESTIMONY OF ROGER A. LOOMIS
BEFORE THE
U.S. SENATE SUBCOMMITTEE ON HOUSING AND URBAN AFFAIRS
AUGUST 8, 1990

My name is Roger A. Loomis, I am employed by Varian Associates, Palo Alto, California, as Director, Security, and Manager of the company Commute Alternatives Program. I am here today to summarize Varian's accomplishments in reducing traffic congestion, improving air quality, conserving fuel, and to recommend actions we believe the Federal Government should take to reduce traffic congestion and improve air quality.

Varian established a ridesharing program in early 1980 which achieved a moderate success of 17% in ridesharing by its employees at our headquarter site. During 1983, new challenges facing the corporation culminated in Varian establishing a more aggressive commute alternatives program. We had run out of parking spaces at our Palo Alto site and were faced with the prospect of developing what little land we had left for parking rather than buildings. It was also becoming increasingly difficult to recruit employees as they were being forced to move further away from their job site because of rising housing costs in the immediate area. At the same time, surveys of our headquarters community identified traffic congestion as the number one public concern. In order to address these concerns, Varian decided to embark on a program to significantly increase ridesharing by our employees.

We began by conducting focus group studies with our employees, to identify the most effective ways to motivate them to use ridesharing, and implemented a stepped up commute alternatives program in March 1984. Within one year we increased our ridesharing from 17% to 40%. The success of the program eliminated the need to expand our parking and instead allowed us to make better use of our undeveloped land. We were able to more effectively recruit employees, and we received considerable praise from the local community for the significant contributions we made in reducing traffic and improving air quality.

Since 1984 Varian has continued to improve and refine its commute alternatives program and has now achieved a 43% employee ridesharing level at our headquarters site. Our ridesharing program has resulted in the elimination of 95,000 vehicle trips, over 7.5 tons of air pollutants, and the consumption of 88,000 gallons of gasoline each month. The program has been extremely well received by our employees.

The cost of programs necessary to effectively reduce vehicle traffic and air pollution in highly urbanized regions, like the Bay Area, are beyond the funding capabilities of local government. To get the job done it will be necessary for the Federal Government to also provide some financial support and incentives. In particular, we would recommend that the Federal Government: (1) establish a tax credit system for employers who promote ridesharing and for employees who take advantage of such programs; (2) provide federal funding to develop a coordinated and comprehensive rapid transit system to serve the Bay and establish adequate bus feeder service; and (3) fund R&D efforts to develop alternative power sources for vehicles such as electrical and solar powered engines.

I would like to express my appreciation to this subcommittee for the opportunity to share with you Varian's accomplishments in ridesharing and our recommendations for Federal Government actions to reduce traffic congestion and improve air quality.

VCAP Varian Commute Alternatives Program

SUMMARY STATISTICAL REPORT - 1989
PALO ALTO SITE

	MONTHLY (AVG) LOW(WINTER)	MONTHLY (AVG) HIGH(FALL)
o DISCOUNTED (25%) PUBLIC TRANSPORTATION PASSES SOLD	332	364
o # EMPLOYEES USING COMMUTE ALTERNATIVES	1,587	1,817
o PROGRAM IMPROVEMENT IN QUALITY OF LIFE		
- TOTAL TRIP REDUCTIONS	83K	95K
- ESTIMATED SAVINGS IN GAS CONSUMPTION	76.8K	87.9K
- REDUCTION IN AIR POLLUTANTS	6.7 TONS	7.7 TONS*
o % OF TOTAL EMPLOYEES USING RIDESHARING	37%	43%

o COMMUTE ALTERNATIVES - METHODS AS A % OF EMPLOYEES (AVG)

- PUBLIC TRANSPORTATION	9%
- VANPOOLING	3%
- CARPOOLING	22%
- BICYCLES, MOTORCYCLES, WALKING	6%

o RECOGNITION OF PROGRAM

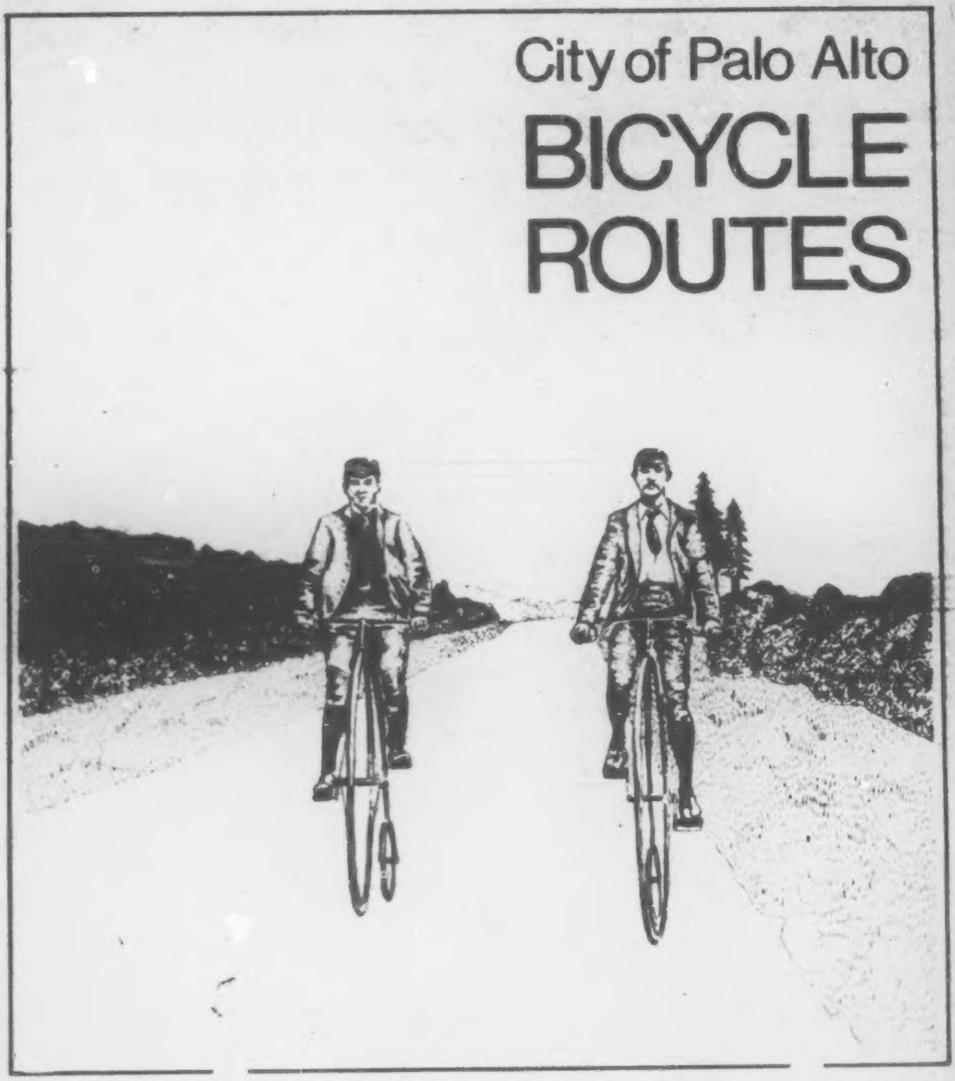
- 8 AWARDS FOR OUTSTANDING ACCOMPLISHMENTS IN RIDESHARING
- RECIPIENT OF STATE OF CALIFORNIA GOVERNOR'S AWARD 1988

o PROGRAM FUNDING	ANNUAL ($000)
- ADMINISTRATION	$33K
- TRANSIT PASS SUBSIDIES	33K
- AWARDS PROGRAM	12K
- PROMOTION	5K
TOTAL	$83K

o COST ANALYSIS

- COST PER COMMUTER	$48.78
- SERVICE BASE - COST PER EMPLOYEE	20.75

*Based on BAAQMD formula



City of Palo Alto

BICYCLE ROUTES

CITY OF PALO ALTO
BICYCLE ROUTES

▬▬▬▬▬ ON-STREET BIKE LANE

〰〰〰 OFF-ROAD BIKE PATH

●●●●●●● SIDEWALK BIKE PATH

▮▮▮▮▮▮▮▮▮ SIGNED BIKE ROUTE

░░░░░ NEIGHBORING JURISDICTION BIKE ROUTE

■ BIKE BRIDGE

▰▰▰▰ BIKE BOULEVARD®

INFORMATION NUMBERS

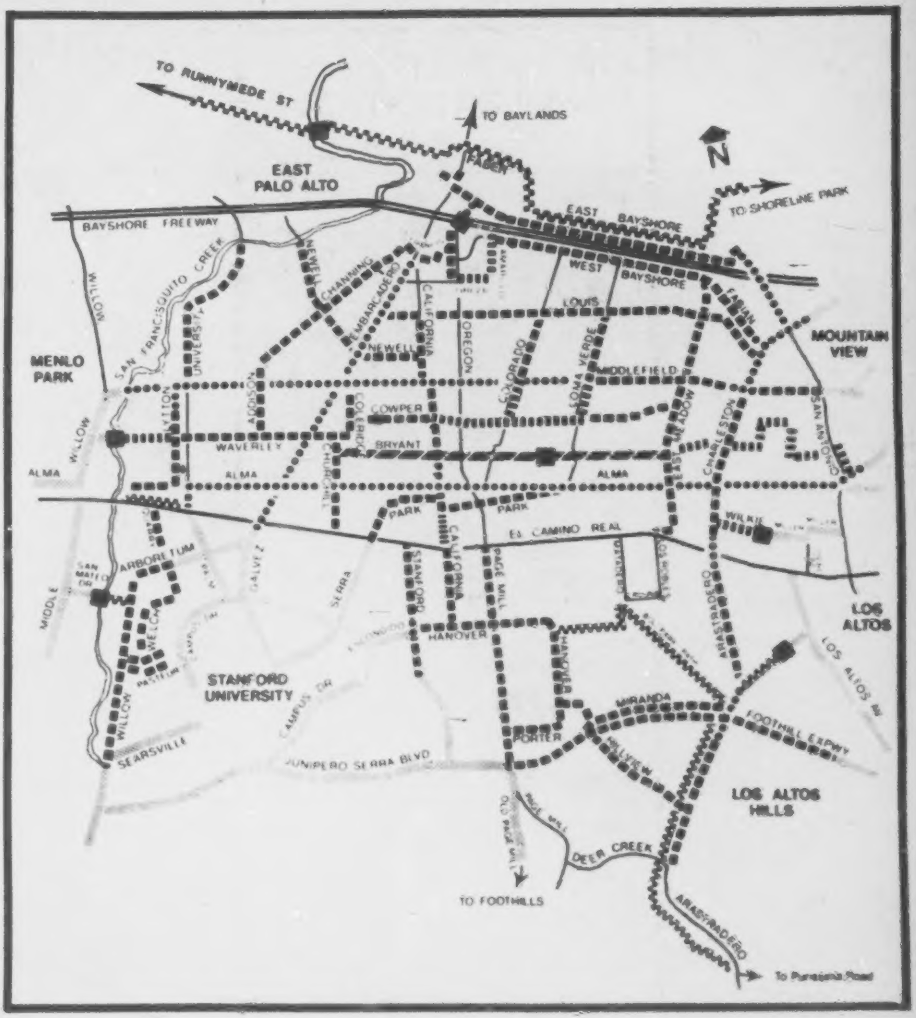
Bike Facilities Maintenance– Operations Division–329-2474

Bike Facilities Design–Transportation Division–329-2520

Bike Safety–Police Department Bicycle Office 329-2201

Bike Theft–Police Department–329-2406

DIVISION OF TRANSPORTATION



TO RUNNYMEDE ST
TO BAYLANDS
N
EAST PALO ALTO
FABER
EAST BAYSHORE
TO SHORELINE PARK
BAYSHORE FREEWAY
WILLOW
SAN FRANCISQUITO CREEK
UNIVERSITY
NEWELL
CHANNING
EMBARCADERO
CALIFORNIA
OREGON
WEST BAYSHORE
LOUIS
FABIAN
MOUNTAIN VIEW
NEWELL
COLORADO
LOMA VERDE
MIDDLEFIELD
MENLO PARK
LYTTON
ADDISON
COLERIDGE
COWPER
EAST MEADOW
CHARLESTON
SAN ANTONIO
WILLOW
WAVERLEY
CHURCHILL
BRYANT
ALMA
ALMA
ALMA
PARK
PARK
EL CAMINO REAL
WILKIE
ARBORETUM
SAN MATEO DR
MIDDLE
GALVEZ
SERRA
STANFORD
CALIFORNIA
PAGE MILL
LOS ROBLES
ARASTRADERO
LOS ALTOS
WELCH
CAMPUS DR
HANOVER
HANOVER
PASTEUR
STANFORD UNIVERSITY
LOS ALTOS RD
MIRANDA
FOOTHILL EXPWY
WILLOW
PORTER
HILLVIEW
SEARSVILLE
JUNIPERO SERRA BLVD
LOS ALTOS HILLS
OLD PAGE MILL
PAGE MILL
DEER CREEK
TO FOOTHILLS
ARASTRADERO
To Purissima Road

RULES OF THE ROAD

1. Ride on the RIGHT with traffic.
2. STOP at all stop signs and red lights.
3. DON'T RIDE on the business district sidewalks.
4. LOOK both ways when entering the street.
5. WATCH OUT for motorists turning across your path or into the street.
6. OBEY all traffic laws.
7. REFLECTORS and a LIGHT are required at night.
8. RIDE on streets with BIKE LANES when possible. Use the map on the other side to plan your trips.
9. DON'T RIDE two on a bike.

PREVENT THEFT

1. REGISTER your bike at any Palo Alto Fire Station (4 p.m. – 5 p.m. any day).
2. RECORD your registration number and all other numbers found on your bike.
3. LOCK your bike by securing both wheels and the frame.
4. REPORT all bike thefts to Police.

Printed by the City of Palo Alto

"Beat Urban Crawl . . ."

Take an alternative
to solo car driving!

CHOICES!
CHOICES!
COMMUTE
ALTERNATIVES

What Is It?

An Awards Program
for Employees
Who Commute
by Means Other Than
Solo Car Driving
or Public Transportation

varian

CHOICES! CHOICES! CHOICES!

What Are They?

- Van pool
- Car pool
- Bicycle
- Motorcycle
- Walk
- Or maybe something we haven't thought of . . .

Program Information

Eligibility requirements for participation

- Must be a regular full time employee
- Must be employed on date of raffle
- Must use some form of commute alternatives at least 50% of the time during the quarter
- Must be registered with Varian Commute Alternatives Specialist by the end of each quarter

Awards

- Quarterly drawings held within two weeks of the end of each new quarter
- Fifty prizes given away to include trips for two to savings bonds to gift certificates
- Winners will be contacted directly and announced in the Newsnote

Information/Registration

- To obtain more information or to register, contact Cindi Pedrazzi, extension 6658, M/S E-056

“I arrive at work awake, alive, my blood pumping, in a joyful mood...and ready to work hard. I do this for *me* most of all; for the environment second.”

--Carlin Otto
PAID
Bicyclist

“The main advantage to me is convenience. I had been a satisfied train commuter until we moved. I then found a convenient express bus to ride.

I used to think I'd be "trapped" at work all day if I didn't have my own car. I now find I can conduct most of my errands within walking distance.

Riding the bus or train costs a fraction of driving a car. However, cost runs a distant second to convenience on my list.”

--Don Blackwell
Management Systems
Bus/Train rider

“Having five people at one time in one car definitely makes it more interesting, fun, *and* cheaper for everyone.”

--Rex Shepherd
Plant Facilities
Carpooler

VCAP

Varian Commute Alternatives Program

TOMORROW I'M TAKING THE TRAIN!

Questions?

What is a commute alternative?

- ☐ Nearly any other method of commuting to work other than solo-car driving, such as train, bus, bicycle, car or van pool, motorcycle, etc.

Why should I consider trying it?

- ☐ Significant savings through reduced gas consumption, maintenance, and auto insurance.
- ☐ Eliminate stress of driving in heavy traffic.
- ☐ Reduce traffic and pollution in the Bay Area.

What does Varian offer?

Varian Commute Alternatives Services and Incentives

Bus/Rail Discount Pass Program

- ☐ Convenient monthly sales of bus/rail passes at division petty cash locations.
- ☐ 25% discount on all bus/rail passes sold to regular employees.
- ☐ Transit information racks in lobbies.

Bicycle/Motorcycle Services

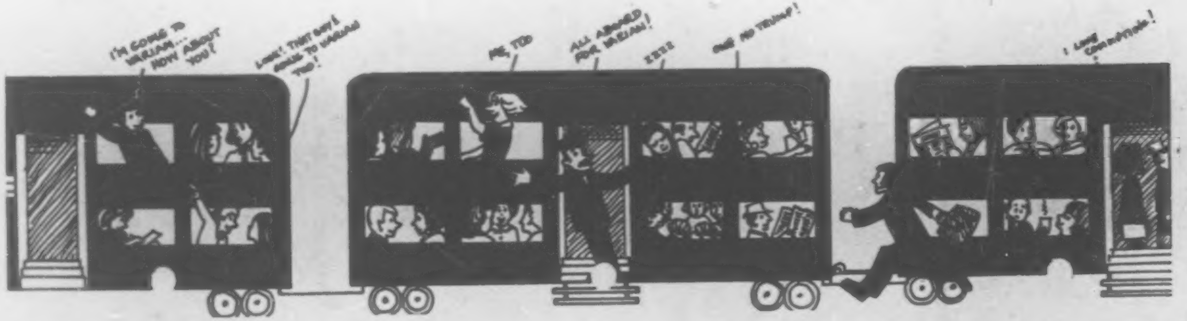
- ☐ Convenient parking for motorcycles.
- ☐ Enclosed bicycle storage.

Commute Alternatives Counseling Service–
Palo Alto, extension 5658

- ☐ For any information concerning Varian's commute program.
- ☐ Assistance in selecting method of commute alternative best suited to your personal needs.
- ☐ Carpool matching service with other Varian employees.
- ☐ Bicycle/motorcycle service.
- ☐ Interface with transportation agencies on service/route problems.

"Choices, Choices" Raffle

- ☐ Quarterly raffle (50 awards) for those employees using forms of commute alternatives other than public transit.


I'M GOING TO VARIAN... HOW ABOUT YOU?
LOOK! THAT GUY'S GOING TO VARIAN TOO!
ME, TOO
ALL ABOARD FOR VARIAN!
ZZZZ
ONE NO TRUMP!
I LOVE COMMUTING!

varian

memo to employees

November 20, 1987

Fellow Employees:

The heavy traffic on our roadways is the number one concern of Bay Area residents, according to recent surveys conducted by the Bay Area Council and local newspapers. Continually expanding and increasing the number of roadways has proven to be an undesirable method of reducing traffic congestion, because of the high cost and additional air pollution that would result.

Recent studies by government and private organizations suggest ridesharing is one of the most practical ways of dealing with this problem. Increased ridesharing by residents commuting to work would significantly reduce traffic congestion, air pollution, and the need for continued expenditures for road expansion.

Varian supports the concept of ridesharing to help solve our traffic and pollution problems and has established a comprehensive commute alternatives program to encourage and assist employees in this area. While selecting a means of commuting to work is entirely up to you, of course, I encourage you to look into the various alternatives available.

We have a number of excellent incentive programs to encourage employee participation. The incentives include convenient on-site sale of transit passes at a 25% discount, a van/car pool matching service with other Varian employees, convenient van/car pool/motorcycle parking, and enclosed/secured bicycle storage bins.

Varian's Commute Alternatives Coordinator can be reached at extension 6658 and will be happy to assist you in exploring commute alternatives and determining which would be best suited to your particular needs.

Tom

Tom Sege
Chairman of the Board
Chief Executive Officer

VCAP Varian Commute Alternatives Program

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*Based on BAAQMD formula

VARIAN VAN/CAR POOL QUESTIONNAIRE

GENERAL

Last Name ______ First ______ Middle Initial ______

Street Address ______ City ______ State ______ Zip ______

Nearest Major Cross Streets ______

Division ______ Bldg ______ City ______ Ext. ______ Mail Stop ______

Present Working Hours ______ Any Flexability to these hours; If so what ______

Estimated miles and time to work ______

COMMUTE DATA

- ☐ Always drive to work alone.
- ☐ I desire to participate in ☐ Car Pool ☐ Van Pool
- ☐ I am ready to participate in Van/Car Pool immediately — please register me in Varian's Matching Service.
- ☐ I desire more information to decide on which method of ridesharing I prefer. Register me for both Car and Van Pool availability.

Return completed form to Cindi Pedrazzi, M/S E-056

Complete the following if you are in car/van pool

☐ Car Pool ______ % of time

Car Pool Participants

Name	Business Location	Business Phone

Ridership
Car Pool full ☐
Looking for more riders ☐

Time window of picking up riders
AM ______
PM ______

☐ Van Pool ______ % of time

Register with rides ☐ Yes
☐ No

Van Pool Operator

______
Name

______
Business Address ______ Bus. Phone ______

Number of participants in Van Pool ______

Seeking additional riders ☐ Yes
☐ No

Time window of Van Pool
AM ______
PM ______

Certification Authorization

I understand the information furnished in the questionnaire will be handled in a confidential manner and used only for the purpose of establishing Varian's Van/Car Pooling Matching Service.
I authorize Varian's Van/Car Pooling Matching Service to refer my name/telephone number to third parties interested in Van/Car Pooling.

______ Signature

______ Date

VARIAN COMMUTE ALTERNATIVES PROGRAM
CHOICES! CHOICES! REGISTRATION FORM

- **REGISTRATION** (Please Print)

Full Name ________ Badge # ________ Division ________

Building ________ Mail Stop ________ Extension ________

Home Address ________ City ________ Zip ________

- **COMMUTE ALTERNATIVE USED (PLEASE CIRCLE ALTERNATIVE USED AT LEAST 50% OF TIME)**

Bicycle	Are you using enclosed bicycle storage lockers	Yes No
Motorcycle	Type ________ License # ________	
Walk	Distance to Work (Miles) ________	
Other (Describe) ________		

- **CERTIFICATION**

I certify the above information is correct and agree to verify information on this form if requested. I understand that incorrect information on this form will invalidate my eligibility for the CHOICES! CHOICES! award program.

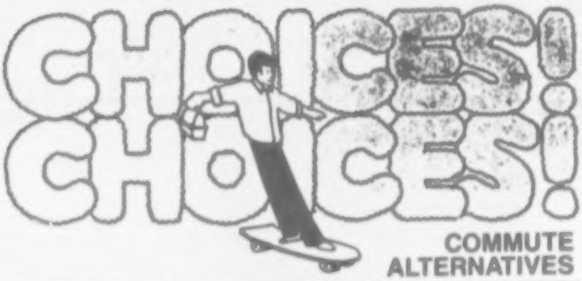
Signature ________ Date ________

Return completed form to Cindi Pedrazzi, M/S B-036

Special Edition

NEWSNOTE

October 13 • Varian News for Varian People • 1986



Win a trip to Hawaii — register at the Commute Fair

Varian is enlisting its employees in a campaign against traffic jams, bad air, and the stress and strain of daily solo car commuting. Your participation in this effort may win you a free trip to Hawaii   a quiet weekend for two in Carmel   a $100 U.S. Government Savings Bond   dinner for two at one of the Bay Area's finest restaurants   or one of the many other prizes in the Commute Fair drawing.

Just come to the Varian Commute Fair from 11 a.m. to 1 p.m. on October 15 at the Palo Alto fountain. Anyone attending the fair can register for the drawing, which will be held on October 24. A total of 18 winners will receive prizes. Free hot dogs and drinks will be served to all who attend.

Varian employee John Wellington, Process Engineer at Microwave Tube Division, will be leading his own band at the fair — the California Repercussions. The band includes 16 members and has played for Varian tailgate parties at the Giants games and at division picnics.

Varian's Commute Fair is supported in part by funding from the Santa Clara County Transit Agency.

The agency's booth at the fair will feature information on county transit options. Other exhibitors at the fair will be the Palo Alto Bicycle Shop; the American Heart and Lung Association; SamTrans; and CalTrain, to name just a few.

Varian commuters receive 25% off the price of monthly passes on San Mateo County Transit (SamTrans), CalTrain and the County Transit. Now, employees using other alternatives will be honored as well.

"Choices, Choices," a vital addition to Varian's on-going commute program, has been established to honor bicyclists, walkers, motorcycle riders, car poolers and others with creative alternatives. These commuters should register at the Commute Fair to participate in the first "Choices, Choices" raffle this January.

Other news for Varian commuters

- The Commute Fair will feature a Bike-A-Thon, which will begin 11:30 a.m. at the flagpole. If you have not yet registered, you may do so at the start of the ride. All riders will receive a free tire repair kit.
- When you purchase your bus tickets/passes, pick up a new Bus Service Performance report. The information on this form will be used to give County Transit a monthly "Report Card" on their service, and should lead to improved service in the near future.
- By mid-November, a computer will match Varian employees to carpools. The computer program also will track ridesharers for eligibility in the new "Choices, Choices" quarterly raffle.
- AC Transit has a bus line across the Dumbarton Bridge. The DB line connects with a SamTrans bus line to Varian.
- Do you have any complaints, comments, or commendations on the type of commute you have? Please call Cindi Pedrazzi, Commute Alternatives Specialist at Palo Alto extension 6658. She'll make sure the agency involved receives your input.

[illegible] as Manager of Process Services and Engineering at Varian's Microwave Tube Division (MTD) [illegible]

Varian reaches new heights

The following distinctions have been earned by Varian's Commute Program.

- Varian has the highest percentage of ridesharing reported by any Santa Clara County company.
- Nearly 9% of Varian employees use public transportation. This is three times higher than the county average.
- Varian employees using commute alternatives do away with 4,200 vehicle trips each day.
- [illegible]
- [illegible]
- [illegible]

Subscription bus service offers customized routes

[illegible]

NEWSNOTE

Varian Associates, Inc.

varian

Editor

Contributors

Varian NewsClips

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For more information, call extension 5266

Commute questions?

Come to Varian's Commute Fair

Tired of fighting the commute wars? Find out how to win the battle at Varian's Commute Fair, October 14 from 11 a.m. - 1 p.m. at the Building 4 fountain area. Get answers to your questions - and free hot dogs and drinks to boot.

You'll find info about Varian's transit pass subsidy program, carpool/vanpool matching, the CHOICES! CHOICES! program, and bicycle storage/shower arrangements.

Other exhibitors will include Santa Clara County Transit, RIDES for Bay Area Commuters (with a portable computer for on-the-spot car/vanpool matches), AC transit, samTrans, CalTrain, Palo Alto Bicycles, and the American Heart and Lung Association.

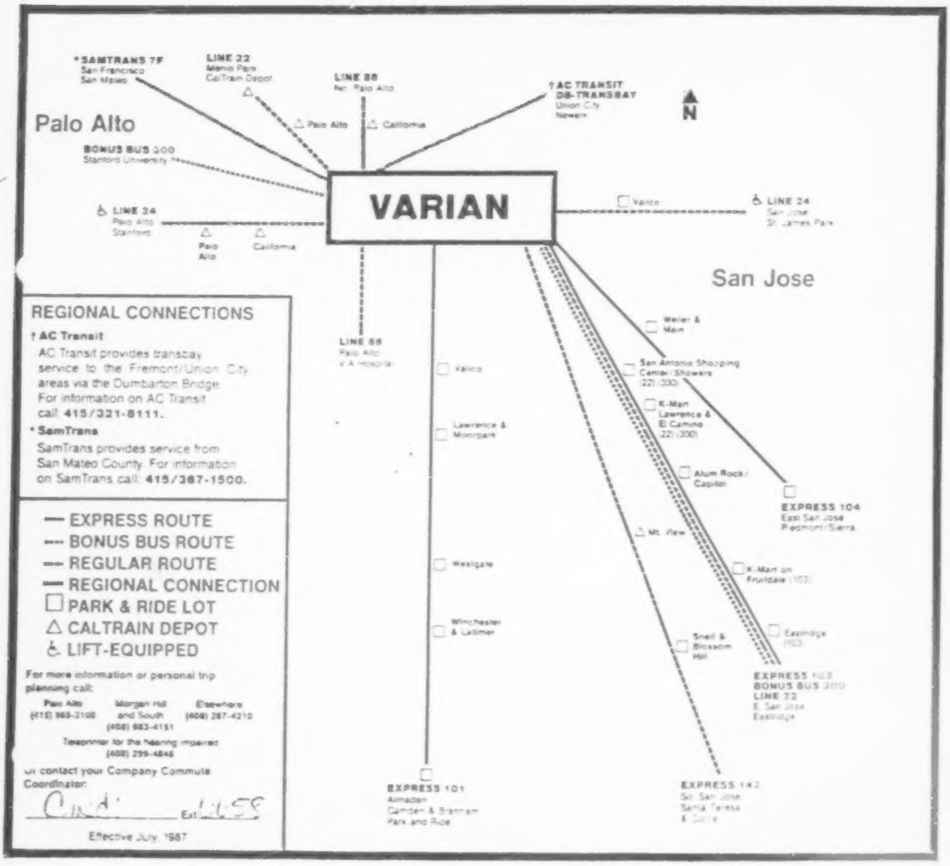
Varian October Ridesh

Fair attendees can register for this quarter's CHOICES! CHOICES! drawing. Fifty prizes will be given, including a $1,000 travel gift certificate, dinners, and saving bonds. The *California Repercussions*, led by Microwave Tube Division Process Engineer John Wellington, will provide entertainment.

The half-hour annual Varian Bike-a-thon will start at 11:45 a.m. at the Building 4 flagpole. Registered participants will receive a solid brass tire pressure gauge. To register, call Cindi Pedrazzi at Palo Alto extension 6653.

COMMUTER CIRCUIT

County Transit Service to Varian (Palo Alto)


Palo Alto
*SAMTRANS 7F
San Francisco
San Mateo
LINE 22
Menlo Park
CalTrain Depot
LINE 88
No. Palo Alto
△ Palo Alto
△ California
†AC TRANSIT
DB-TRANSBAY
Union City
Newark
N
BONUS BUS 300
Stanford University
VARIAN
♿ LINE 24
Palo Alto
Stanford
△ Palo Alto
△ California
☐ Vallco
♿ LINE 24
San Jose
St. James Park
San Jose
LINE 88
Palo Alto
V.A. Hospital
☐ Vallco
☐ Lawrence & Monrpark
☐ Westgate
☐ Winchester & Latimer
EXPRESS 101
Almaden
Camden & Branham
Park and Ride
☐ Weller & Main
☐ San Antonio Shopping Center/Showers (22) (300)
☐ K-Mart Lawrence & El Camino (22) (300)
☐ Alum Rock/Capitol
EXPRESS 104
East San Jose
Piedmont/Sierra
△ Mt. View
☐ K-Mart on Fruitdale (103)
☐ Eastridge (103)
☐ Snell & Blossom Hill
EXPRESS 103
BONUS BUS 300
LINE 22
E. San Jose
Eastridge
EXPRESS 142
So. San Jose
Santa Teresa
& Cottle

REGIONAL CONNECTIONS

† AC Transit

AC Transit provides transbay service to the Fremont/Union City areas via the Dumbarton Bridge. For information on AC Transit call: **415/321-8111.**

*** SamTrans**

SamTrans provides service from San Mateo County. For information on SamTrans call: **415/367-1500.**

— EXPRESS ROUTE
---- BONUS BUS ROUTE
-- REGULAR ROUTE
— REGIONAL CONNECTION
☐ PARK & RIDE LOT
△ CALTRAIN DEPOT
♿ LIFT-EQUIPPED

For more information or personal trip planning call:

Palo Alto (415) 965-3100	Morgan Hill and South (408) 683-4151	Elsewhere (408) 287-4210

Teleprinter for the hearing impaired
(408) 299-4846

or contact your Company Commute Coordinator:

Cindi Ext [illegible]

Effective July, 1987

Santa Clara County Transit

A thousand throng to Commute Fair

Seven public transit and ridesharing organizations from throughout the Bay Area joined some 1,500 Varian employees and local dignitaries at Varian's annual Commute Fair last week.

Government representatives attending the fair included Palo Alto Mayor Gail Wooley, City Council Member Ellen Fletcher, and Mary Kate Franci, who represented Dianne McKenna of the Santa Clara County Board of Supervisors. Also in attendance were Jim Reading, director, Santa Clara County Transit Agency, and Don Voltman, director, Transit Operations.

"These individuals and the committees they sit on have taken a leadership role in addressing the traffic situation in our local community," says Milt Siegel, manager, state/local governmental affairs. "They all were very interested in our progress in this area, particularly as Varian's ridesharing program has been held up as an example to other companies considering implementing programs of their own."

This was the second occasion in a matter of weeks that Varian received attention for its contributions to reducing traffic. In September, San Francisco's Metropolitan Transportation Commission singled out Varian's transit pass subsidy program for an Award of Merit. The award was one of 20 presented by the commission this year.

According to Roger Loomis, security director and head of the company's commute alternatives program, the Commute Fair generated more than 300 requests for information about commute alternatives such as car- and van-pool matching, bus and rail service, and bicycle routes. For more information about Varian's ridesharing programs, contact Cindi Pedrazzi, Palo Alto ext. 6658.

Milt Siegel, manager, state/local governmental affairs, (standing, left) guides Palo Alto Mayor Gail Wooley (standing, right) through the booths at Varian's Commute Fair, including this one staffed by RIDES to demonstrate computerized car- and van-pool matching services.

STATEMENT OF STEVEN A. DIAZ
CHIEF COUNSEL
URBAN MASS TRANSPORTATION ADMINISTRATION
BEFORE THE SENATE COMMITTEE ON
BANKING, HOUSING AND URBAN AFFAIRS
SUBCOMMITTEE ON HOUSING AND URBAN AFFAIRS
CALIFORNIA FIELD HEARINGS
AUGUST 7-8, 1990

Mr. Chairman, my name is Steven A. Diaz. I am the Chief Counsel of the Urban Mass Transportation Administration (UMTA), an agency of the United States Department of Transportation. My appearance here today is in response to your July 27, 1990, letter to our agency requesting its participation in these field hearings on the UMTA grant management process. Appearing with me today is Renee Marler, Counsel for Region IX which has jurisdiction over a number of States including California.

DESCRIPTION OF UMTA'S GRANT PROGRAM

UMTA is the principal source of Federal financial assistance for public mass transportation in the nation. Since its beginning in 1964, UMTA has provided $59.6 billion in funding to public transit systems throughout the nation. Each year, UMTA provides funds to about 450 urban mass transit systems using UMTA's formula and discretionary grant programs. In addition, UMTA provides funding to non-urban rural communities through a series of programs administered through the States.

Formula Grant Program

Under the Urban Mass Transportation Act of 1964, as amended (UMT Act), Section 9 formula funds, which come from the general fund, are apportioned to urbanized areas using a formula based on population density and other factors associated with transit service and ridership. Grants under this formula program provide financial assistance for capital, operating and planning projects.

Discretionary Program

UMTA's Section 3 program is one of the largest discretionary grant programs in the Federal government. In FY 1990, Congress provided UMTA with $1.3 billion in budget authority for discretionary grants. Funds for the Section 3 program come entirely from the Federal motor fuel tax. The purpose of the Section 3 program is to assist in the funding of high priority projects, or extraordinary projects, for which the costs exceed the level of available Section 9 formula funds as well as local resources.

The Section 3 program is comprised of three categories:

- Bus - The acquisition of buses and ancillary equipment and the construction of bus facilities.
- Rail Modernization - Limited to the traditional ""old rail cities" (i.e., Boston, New York, Philadelphia, N.E. New Jersey, Pittsburgh, Cleveland, San Francisco and Chicago).
- New Starts - Funding for new rail projects. Eligible projects are subjected to a rigorous planning process including alternatives analysis.

SCOPE OF REGION IX GRANTS

Region IX is responsible for grants in several states, including California. The regional staff deals with 88 grantees, annually awarding about 100 grants obligating about $500 million in Federal funds. There are over 400 active grants, with total obligations of about $3.8 billion, of which $1.1 billion has yet to be disbursed.

The largest grants are awarded to regional transit agencies in Los Angeles, the Bay Area, San Diego, Sacramento and Honolulu. Active grants to 15 grantees in the Los Angeles-Long Beach Urbanized Area amount to approximately $2 billion in obligations, or about 53 percent of the total. Of this amount, grants for construction of the Metro Rail subway in Los Angeles account for $1 billion. Active grants to 12 grantees in the San Francisco-Oakland and San Jose Urbanized Areas amount to another $1.3 billion.

DOCUMENTATION OF THE USE OF UMTA FUNDS

Federal regulations (see 49 CFR Part 18) require grantees to provide UMTA with considerable documentation on their use of Federal funds. This documentation, provided through narrative reports (both project and financial), is provided to UMTA on a quarterly basis, as well as through other reports on significant issues related to projects.

UMTA grantees are responsible for administration and management of the Federal grant in compliance with the terms and conditions of the grant agreement and requirements of applicable UMTA circulars and regulations. UMTA monitors grants to confirm that grantees establish and follow procedures that are reasonable and comply with UMTA requirements.

UMTA receives information from grantees at an appropriate level of reporting detail. This will assure that UMTA has the information needed to manage its overall program and to respond fully to specific requests from Congressional committees, auditors and the general public.

The information UMTA needs for program forecasting, management and reporting is furnished by the grantee through quarterly narrative progress reports about significant events, relevant grant activities and any changes to or variance in the grant schedule or budget. At a minimum, each quarterly progress report provides the following information:

(a) A discussion of budget or schedule changes not requiring UMTA approval.

(b) A comparison of scheduled activities and budgeted expenditures with actual accomplishments for the reporting period. Reports should be specific and include information on present status; completion dates for specification preparation; bid solicitations; resolution of protests; and contract awards. Also completion and acceptance of equipment and construction or other work should be discussed.

(c) Reasons why any scheduled milestones or completion dates were not met, identifying problem areas and discussion by the grantee on how the problems will be solved.

(d) A list of all outstanding claims exceeding $100,000 and all claims settled during the reporting period.

UMTA also receives from grantees quarterly financial status reports which are used to monitor project funds. This is to report the status of funds used for all non-construction and construction projects based on the required supporting documentation maintained by the grantee under an adequate accounting system that produces information which objectively discloses financial aspects of events or transactions.

Other reports required of the grantee by UMTA in its oversight role include the Disadvantaged Business Enterprise (DBE) Quarterly Progress Report required by the U.S. Department of Transportation's DBE regulation, and reports of significant events. These latter reports are to be issued when unforeseen events that affect the schedule, cost, capacity, usefulness or purpose of the project occur. In these situations, the grantee should report the event immediately to UMTA, and then reflect it in the next quarterly progress report as well. The quarterly report is due within 30 days after the end of each calendar quarter. Payments to grantees may be withheld when reports are not submitted on time.

UMTA PROJECT OVERSIGHT

With respect to UMTA's oversight jurisdiction or responsibility, it is important to note that UMTA is not a regulatory agency. Specifically, local agencies are responsible for determining service levels and fare structures, and all other matters relating to the day-to-day operations of a transit system.

Our oversight responsibilities are spelled out in our authorizing legislation. Specifically, Section 3 of the UMT Act requires that no grant or loan shall be provided under this section unless the Secretary determines that the applicant has or will have the technical capacity to carry out the proposed project. Section 9 of the UMT Act requires each recipient of funds made available under this section to annually certify to UMTA that it has or will have the technical capacity to carry out the proposed Program of Projects. This determination is made using several formal and informal methods including:

- Day to day contact and information meetings between the grantee and UMTA staff;
- Grantee requests for guidance;
- Annual and special audits;
- Progress and financial status reports;
- Third party contracting activity;
- Quarterly project review meetings; and,
- Triennial reviews.

The Quarterly Project Review Meetings (QPRM) deserve further discussion. QPRM's are an important technique UMTA uses for overseeing and managing the work of its larger grantees. These meetings, which are held four times a year, are attended by UMTA Regional Managers and staff, Grantee General Manager and staff, project management oversight contractors, and, if the issues to be discussed warrant, UMTA Headquarters representatives. The meetings are a forum for management briefings, verbal status reports, discussions of accomplishments or problems that have arisen over the last quarter and proposals for action to be taken on significant problems. These face to face discussions provide a recurring, structured opportunity for direct communication on problems and issues and often draws out information that is not apparent from the written quarterly progress reports. Action items highlighted during the QPRM's are monitored during the quarter, and are the subject of follow-up discussions during subsequent meetings.

STRENGTHENING OF OVERSIGHT ACTIVITIES

In response to internal and external examinations revealing the need for increased grants management oversight within the agency, UMTA has taken a number of actions to strengthen and improve performance.

I. PROJECT MANAGEMENT OVERSIGHT

In 1989, UMTA issued final regulations implementing the Project Management Oversight (PMO) program mandated by Section 324 of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (STURAA). This section permits UMTA to use up to 0.5 percent of the funds made available in each fiscal year under its capital grants programs for PMO of major capital projects.

Beginning in 1983, UMTA reviewed the way in which it provided oversight of one of its principal functional areas - construction of major capital projects by recipients of its funds. After examining a number of other Federal oversight programs, UMTA determined that a definite need existed to increase its independent oversight of projects utilizing large amounts of Federal funding. As a result, UMTA developed a national project management oversight program for major capital projects using independent contractors. Under the program, UMTA assigned independent contractors, paid by and reporting directly to UMTA, to perform project management oversight functions on certain major capital projects. This arrangement allowed UMTA to more carefully monitor certain major capital projects without increasing its staff. The 1987 STURAA subsequently provided specific authorization for this program and provided it with an assured source of funding.

The program has two parts. First, there is project management oversight which is designed primarily to aid UMTA in its role of ensuring the successful implementation of Federally funded projects. UMTA normally would contract for PMO services during the grant application process, although it is possible for UMTA to make the determination that a project is "major" at a later date, and contract for PMO services at that time. Second, there is the project management plan (PMP) required of all major capital projects as a condition of receiving Federal assistance. The PMP is designed to enhance a grantee's planning and implementation efforts, as well as to assist UMTA's grant application analysis efforts. Although the PMP is required to be submitted during the grant review process, the actual due date can vary as the result of a number of factors including the fact that UMTA may not have made the determination that the project is a "major capital" one. UMTA considers the PMP to be a dynamic document reflecting the various stages of a project's development. As such, it is necessary for the grantee to submit periodic updates as needed - and appropriate - to reflect the changing conditions of the project.

UMTA currently has a stable of 12 contractors retained through the competitive procurement process who carry out PMO activities which now involve work on some 33 different projects. A provision in UMTA's Fiscal Year 1990 appropriation law assists the agency in this effort by amending the statutory project management oversight language to allow UMTA to expand the use of those funds to pay contractors to perform procurement, safety, and financial management audits of our grantees. We are pleased with the way the program is working, and with the enactment of that provision because we believe it will enable us to better perform our ongoing oversight functions.

Let me point out in this connection that most PMO projects involve new rail starts. In the 1987 reauthorization of the transit program, Congress mandated that UMTA fund only those new start projects that the Secretary found to be cost-effective and supported by an acceptable degree of local financial commitment. Unfortunately, the 1990 DOT appropriations act prohibits us from a final regulation that would implement the Congressional mandate, and it appears that the prohibition will be reiterated in our 1991 appropriations bill now pending in Congress. We urge Congress to allow us to issue our final rule so that the 1987 law may be implemented.

II. THIRD PARTY CONTRACT ACTIVITY

The UMT Act contemplates multiple roles by UMTA in grantee procurements. For example, Sections 3 and 9 require use of competitive procurements; prohibit use of exclusionary, discriminatory specifications; require compliance with Buy America provisions; ensure procurement procedures are fair and competitive, etc. These responsibilities are carried out through UMTA's Third Party Contracting Activity (TPCA) whose purpose is to ensure that funds appropriated under the UMT Act are expended in the most efficient and effective manner consistent with principles of maximum free and open competition and other statutory requirements.

UMTA's Third Party Contracting Activity consists of three principal elements:

A. Guidance and Technical Assistance

Guidance to Grantees: technical assistance by way of oral advice is provided by both headquarters and field personnel. In addition, policy and procedures are issued in the UMTA Directives System. UMTA Circular 4220.1B, Third-Party Contracting Guidelines, dated May 5, 1988, serves as the principal vehicle for establishing minimum requirements applicable to all grantee procurement systems. In addition, UMTA has developed a Handbook For Third-Party Contracting, that describes in lay terms the fundamental principles of contracting with Federal funds and explains in general the major do's and don'ts. The Handbook was recently tested in field training and, following final revisions, will be made available as an aid to all our grantees this fiscal year.

Third Party Contract Review. UMTA has identified certain categories of contract action which are particularly susceptible to abuse and therefore requiring special oversight. Included in this category are sole source contracts and single bid awards.

UMTA has a system in place whereby selected contracts of this type are required to be submitted to UMTA for review. In turn, UMTA has established a Third Party Contract Review Board which serves to provide UMTA program managers with advice and assistance as requested.

Systems and Procedures. As part of its Technical Assistance to grantees, UMTA performs limited reviews of both individual contract actions as well as broader reviews of grantee systems and procedures.

B. Training

Procurement training for both UMTA and grantee staffs is provided through a combination of in-house and contract training in both the fundamentals of government contracting as well as specialized courses in particular areas where a special need has been identified as in the areas of negotiation and cost/price analysis.

C. Oversight

Beyond the provision of technical assistance and training, UMTA has a duty to monitor the ways in which grantees expend UMTA assistance in carrying out authorized program activities. Traditional oversight activities include financial audits, operational audits, and other program and administrative reviews.

Self-Certification. UMTA Circular 4220.1B requires recipients operating 100 or more buses to self-certify that their procurement systems meet the minimum requirements of the Circular. Operators of smaller systems are permitted, but not required, to self-certify. Self-Certification includes provision of a system description outlining the basic elements of the grantee procurement process. This summary is reviewed by UMTA staff as part of the triennial review activity and for other monitoring purposes.

Procurement System Reviews. Section 9(i) of the UMT Act provides that recipients may request the Secretary approve their procurement system. Approval is binding until withdrawn for all expenditures under Section 9. In addition to these "Certification Reviews", UMTA periodically initiates its own in-depth reviews of recipient procurement systems in response to a variety of stimuli including OIG audits, Congressional inquiries, public complaints, triennial review findings, etc.

UMTA is reviewing proposals for a contract similar to the PMO contract (multiple awards, work to be authorized by task order) to conduct reviews of grantees' contracting systems. It is expected that work under this contract will begin in October 1990, and continue through September, 1995. Reviews will be of two types: General Purpose Reviews, which will follow a published annual schedule and be conducted according to a structured protocol, and Special Purpose Reviews, which will be scheduled as needed, and structured according to the purpose for which the review is being conducted.

Special Studies. In addition to procurement systems reviews, the contractor would occasionally be tasked with performance of special studies of particular contacting issues.

Responsibility and authority over third party contracting matters is disbursed throughout the agency according to delegations of statutory authority under different sections of the UMT Act. There is virtually no program office in UMTA that does not have substantial responsibility for TPC. The TPCA has been identified by UMTA as an integral subsystem of an overall UMTA Management Oversight Activity necessary to fulfil the requirements of the UMT Act, as well as the Federal Managers' Financial Management Integrity Act. As such, increased staffing and contract resources have been budgeted for this activity over the next several fiscal years.

III. TRIENNIAL REVIEW

In the 1982 Surface Transportation Assistance Act, Congress established a new Section 9 formula block grant program, and provided that compliance would be through self-certification by grantees. Section 9 of the UMT Act also requires, however, that the Secretary shall, not less than once every three years, perform a full review and evaluation of the performance of a recipient in carrying out the recipient's program, with specific reference to compliance with statutory and administrative requirements, and consistency of actual program activities with the proposed program of projects. The review consists of 19 specific program areas.

It is important to note that the triennial review is not an audit, but rather a practical and reasonable approach to maintain a non-intrusive, credible stewardship of the grant program. It was deliberately developed to be a general look behind the self-certifications that accompany the Section 9 grant application. Absent compelling evidence that a problem exists, there is no reason for the triennial review to probe beyond routinely available records. This is the work of auditors and should be left to the auditors during the A-128 audit, the OIG or the GAO.

Some contend that the triennial review should be more comprehensive. For example, GAO recently recommended that we expand the triennial review to include certain tests of a recipient's procurements to determine that proper procedures were being followed, that UMTA expand its safety review, and that it expand its review of private enterprise participation.

UMTA welcomes any recommendations that may improve our performance of the program in accordance with the agency's policies and within the scope of the definition of the triennial review. We do have concern, however, with recommendations, such as the GAO's, that would change the scope and direction of the triennial review beyond that which was ever intended, and beyond UMTA's resources, capabilities or legislative authority. In this connection, we believe our current process is carrying out the program in accordance with the statute.

Given the staff levels at our regional offices, several regions were experiencing difficulty in meeting their triennial review schedule demands. To alleviate this condition, UMTA has entered into a Memorandum of Understanding with the Department of Transportation's Transportation Systems Center (TSC) to provide contractor services as a supplement to UMTA staff reviews. Thus, approximately 33 triennial reviews for Fiscal Year 1990 will be conducted by TSC. We expect the popularity of choosing the option of contracting out some of the more difficult reviews (largest recipients) to grow among our regional offices who perform about 150 reviews each year.

UMTA believes that contracting will enhance the entire program and provide an opportunity to raise the level of documentation which we have found is lacking in our regional offices. Documentation of the triennial review has been emphasized throughout the contracting process and is a stated deliverable in the work statement. Because 1990 is the conclusion of the second cycle of the triennial reviews, we believe that this is an appropriate time to revisit the program. Thus, UMTA has asked TSC to focus on the Triennial Review Order which contains the process we follow in conducting the reviews with an eye towards maintaining sensitivity to the critiques that the reviews be more substantive.

IV. FINANCIAL CAPACITY

UMTA is actively considering a plan to provide, through a competitively procured contractor, extended financial management oversight of grantee projects by having the ability to perform financial reviews of those projects where potential problems have been noted. Under consideration are two procurements totaling $400,000 from Project Management Oversight funds.

On several occasions in the past, financial problems have arisen at grantee organizations that required UMTA staff to preform on-site financial reviews of the grantee's operations. By their very nature, these reviews have been time-sensitive, requiring immediate action on the part of the agency to ensure that Federal funds were being adequately protected. Since UMTA has no specific audit capacity, these financial reviews have been conducted by Accounting Division staff in the Office of Budget and Policy. Since Accounting Division staff have other full-time duties, it is extremely difficult to provide adequate staff on short notice to conduct these reviews. The planned procurement would provide the necessary capability through a contract with a certified public accounting firm to perform the service.

However, these reviews are not intended to be comprehensive audits but, rather, an effective and timely assessment of the reported or suspected problems, and to ensure that the grantee has adequate control over the Federal funds disbursed to them. Requests for comprehensive audits, if needed, could then be made to the OIG.

Let me conclude by emphasizing that UMTA takes very seriously its responsibility for identifying internal control weaknesses, and is aggressively pursuing corrective actions to strengthen its oversight capabilities for grant management. We look forward to working with the GAO and your subcommittee as we seek further improvements in our grants management system.

This concludes my statement and I would be pleased to respond to any questions you may have.

U.S. Department
of Transportation
**Urban Mass
Transportation
Administration**

Headquarters

400 7th Street S.W.
Washington, D.C. 20590

OCT 1 1980

Mr. Dan V. Potash
Professional Staff Member
Subcommittee on Housing
and Urban Affairs
535 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Dan:

To follow-up on my testimony from the Subcommittee's field hearing in San Jose on August 8th with respect to the timeline chart presented by Rod Diridon, please find below some additional discussion on this item which you have indicated is of particular interest to Senator Cranston.

Time Required to Implement Major Capital Investment Projects

The decision to commit hundreds of millions of Federal dollars to construct a fixed guideway transit system should not be done without objective information on all of the implications of the investment, both in absolute terms as well as relative to other projects competing for the limited Section 3 funding available. Obviously, this takes time. While we agree that UMTA's major project development process can be lengthy, the times annotated in the timeline chart are inaccurate for virtually all UMTA decisions cited. In addition, no documentation was provided in support of the assertions. While the times indicated for the other project development steps are not unreasonable for most situations, some cities have completed these steps in about half the minimum times shown.

Systems Planning is the first step in the process and is performed to identify a location, and possible alternatives, for the project. Because this information is usually developed as part of the comprehensive on-going planning process required by the joint transit/highway regulations, it should not demand any "additional" time in the sense presented.

In order to decide whether to advance a proposed project costing hundreds of millions of dollars into the next project development step, known as alternatives analysis (AA), UMTA requires: 1) information of sufficient detail and quality to make an informed decision, and 2) evidence that the proposed projects might be cost-effective. Once this information is satisfactorily provided by local officials, UMTA's decision whether or not to proceed with AA can be made quickly. However, in those cases where UMTA is likely to recommend against proceeding to the next step, local officials can, and frequently do, request that UMTA delay its decision until more convincing data can be developed. Thus, when this occurs, the delay is the result of a request of local officials, not UMTA. Once UMTA has all the necessary information, it can render a decision within one to two months rather than the 6-18 weeks claimed by Mr. Diridon.

The chart is also incorrect in showing that UMTA approval of the Final Environmental Impact Statement (FEIS) requires six to nine months. Because UMTA works closely with the applicant as the FEIS is being prepared, UMTA approval of the document for circulation essentially becomes a formality requiring only two to four weeks. Since UMTA has not issued a Letter of Intent for a major fixed guideway project since 1980, the assertion that this takes six to nine months is incorrect.

Finally, the time to agree to a full funding contract should be no longer than 60 to 90 days. However, if the local area hesitates to commit its own resources for the local share of the project's cost, or there are other legal, technical or financial issues that remain outstanding, then the process could take 12 months or more. While the suggested time requirements for many steps are not unreasonable, there are cases where the minimum times shown have been beaten.

The length of time required for the UMTA project development process is a function of: 1) the complexity of the project, 2) the magnitude and nature of the potential environmental impacts, 3) the status of local planning data bases (e.g., those dealing with costs, the transportation system, demographics, etc.), 4) local analysis tools, 5) the responsiveness of the local staff, and 6) the absence or presence of a local consensus on how to proceed.

The majority of project development time is consumed by technical work which simply must be done to assure both reasonable projects from an environmental perspective and the maximum benefit for the limited Federal resource. Some local decision makers may not be interested in certain requirements (e.g., cost effectiveness), and would prefer to save time by eliminating those parts of the process. However, the discretionary nature of the Section 3 program and its funding limitations dictate that all such requirements be fully considered.

UMTA review time, though not totally insignificant, is nowhere as large a proportion of the whole as Diridon presents it to be. It should be noted that UMTA has continually sought ways to expedite its major investment project development process. Statements of policy have been issued in 1976, 1978, 1980 and 1984, and a Notice of Proposed Rulemaking in 1989 (see 54 FR 17878), each of which provided additional clarity to the field. Detailed project planning technical guidance was issued in 1986, exemplary reports are routinely provided to grantees, staff has conducted numerous alternatives analysis seminars, and we are increasing the use of outside contractor support in performing technical reviews. UMTA is also using project management oversight contracts to monitor preliminary engineering and final design activities, something the agency did not do in the past.

Finally, UMTA is looking at what work could be eliminated, yet still produce credible projects which meet all applicable Federal requirements. We are concerned that given the growing project planning caseload and limited UMTA staff, review times could well increase. As a result, UMTA is continuing its broad effort to explore new ways to streamline its major investment policy and procedures.

Please let me know if I may be of further assistance.

Sincerely,

Steven A. Diaz

TESTIMONY OF

WILLIAM F. HEIN, DEPUTY EXECUTIVE DIRECTOR

METROPOLITAN TRANSPORTATION COMMISSION

OAKLAND, CA

before the

SENATE SUBCOMMITTEE ON HOUSING AND URBAN AFFAIRS

COMMITTEE ON BANKING, HOUSING AND URBAN AFFAIRS
UNITED STATES HOUSE OF REPRESENTATIVES

August 8, 1990

Mr. Chairman, thank you for the opportunity to join you today to discuss the programs of the Urban Mass Transportation Administration (UMTA). My name is William F. Hein, and I am Deputy Executive Director of the Metropolitan Transportation Commission, which is the San Francisco Bay Area's transportation planning and banking agency. As the planning agency for transit in the Bay Area, we oversee a bus and rail network serving over 1.5 million people each weekday with an annual operating budget of $750 million.

You have asked us to focus on UMTA's oversight responsibilities. For the record, we have had a positive and professional relationship with UMTA over the years. There is one area, however, that has been troublesome--namely, the conduct of alternatives analysis for rail investments. The UMTA Alternatives Analysis program, while intended to assist in making real world decisions, has instead served to inhibit transit development at a time when our urban areas are facing both the economic consequences of congestion and the challenge of planning for cleaner air.

The reauthorization of the federal Surface Transportation program in 1991 provides our nation with a unique opportunity to rectify this problem and to focus our transportation resources on resolving the problems of urban congestion, mobility and access.

Secretary Skinner recognized this challenge earlier this year when he released the National Transportation Policy, which in broad terms outlined a new national commitment to transportation. The Policy calls for a flexible, intermodal approach which employs a new governmental partnership in the delivery of transportation programs. We applaud the thinking behind the new policy, and hope that it can be applied consistently in restructuring federal program categories. In order to illustrate how the policy might be translated into reality, I'd like to examine how UMTA's program for identifying and participating in new rail transit projects could be modified.

The National Transportation Policy presented a variety of policy objectives for the future. I have identified three objectives relevant to the UMTA program and will use them to illustrate a new approach to the intergovernmental partnership. Instead of a process which inhibits local initiative, adds years to project delivery schedules, and limits the examination of realistic project alternatives, we would propose an analytical approach which rewards local investment, focuses on performance, and puts federal investment in places where national objectives can be met.

One key component of the National Transportation Policy is its focus on "moving toward greater flexibility in use of transportation funds at all levels of government." Existing categorical programs have forced program decisions to be made within a narrow range of Alternatives. In large metropolitan areas, the choice is realistically a choice between expansion of highway capacity and transit investment. In many cases, the cost per rider of providing highway capacity is far higher than the cost per rider of a transit investment. Yet the Alternatives Analysis methodology focuses study on the comparisons between increased bus service and new rail service, which is not comparable. UMTA's use of a $6 per new rider index is unrealistic, as the construction of equivalent roadway capacity would not be possible in the Bay

Area under this index. While I'm sure it's not the intent, the application of the Alternatives Analysis becomes an anti-urban transportation policy. The Alternatives Analysis process should focus on the key choice between modes, and the investment should be made wherever it is cost-effective--rail, bus, or highway.

Secondly, the National Transportation Policy calls for the federal government to "replace rigid standards and requirements with performance related criteria in federal transportation programs." This policy clearly calls for UMTA to define a different approach to identifying new rail projects. Projects should be measured in terms of their improvement to the performance of the existing system, including their impact on the highway system and local streets and roads. One way of accomplishing this goal would be the adoption of a performance based system, wherein metropolitan planning organizations would be required to develop a congestion management program. New rail projects would have to contribute to congestion relief on the overall system in order to qualify for federal investment. This kind of flexible, multi-modal planning approach would focus federal investment on results, rather than tying federal dollars to a rigid process which relies on artificial indices as a surrogate for performance.

Finally, the National Transportation Policy suggests that new legislation should strengthen "the role of the MPO's in programming and prioritizing transportation projects." This argues again for a revitalization of the intergovernmental partnership that focuses decision-making at the local level, with the federal government providing incentives for local financial support and improving system performance. This approach would encourage collaborative regional planning efforts such as the Bay Area's New Rail Starts program, which developed a regionwide consensus around the development of a $3.3 billion effort to expand and extend our regional rail program. Funded 70% with state and local dollars, the New Rail Starts program represents the kind of program that the UMTA Alternatives Analysis process should encourage. Yet we have been hampered in advancing this program by UMTA's reliance on a nationwide $6 per new rider cost effectiveness index which forces the Bay Area to compete for UMTA funds under the same cost index as Atlanta, Austin, and Salt Lake City. The index ignores that such cities do not have comparable land prices, construction costs or transit operating costs, requiring high productivity projects in the Bay Area to be penalized because of our local economy. The National Transportation Policy's objective of adjusting federal transit requirements "to be more sensitive to the scale and nature of the services and communities involved" could best be met by relying on the collaborative intergovernmental process to define and prioritize transportation programs.

Mr. Chairman, Secretary Skinner's National Transportation Policy provides a blueprint for restructuring UMTA grant programs to develop a more flexible, responsive and performance oriented transit investment program. We have the chance now to capitalize on the Reauthorization of the Surface Transportation Program to design a federal transportation program that provides stable, geographically based funding, multi-modal flexibility and a system performance focus. Such a new program will both resolve our difficulties with the existing UMTA investment policy and meet the national objective of ensuring a sound return on the federal transportation investment.

AUG 7

TESTIMONY OF EDWARD HARRINGTON
ASSISTANT GENERAL MANAGER
OF THE
SAN FRANCISCO PUBLIC UTILITIES COMMISSION
TO THE
SUBCOMMITTEE ON HOUSING AND URBAN AFFAIRS
COMMITTEE ON BANKING, HOUSING AND URBAN AFFAIRS
UNITED STATES SENATE

August 8, 1990
San Jose, California

Good Morning. I am Ed Harrington, the Assistant General Manager and Finance Director for the City of San Francisco's Public Utilities Commission which operates the San Francisco Municipal Railway (MUNI). I am here today to speak to you about UMTA's past and future role in ensuring that mass transit is a viable solution to our nation's transportion problems. I wish to affirm our support for UMTA and to offer an operator's perspective of the problems and issues that UMTA struggles with on a daily basis.

A SUCCESSFUL PARTNERSHIP

As a large transit provider, we have been the recipient of a substantial amount of Federal grants. Were it not for UMTA's support, we would not have been able to rebuild our Cable Cars, construct the MUNI Metro light rail system, replace our diesel fleet, or build new maintenance facilities for much of our operation. Because of these investments we are able to carry 760,000 passengers each day -- over 20% of the public transit trips taken in California. The partnership between UMTA and San Francisco has allowed the Bay Area to grow and prosper while slowing the crippling congestion and pollution problems found in many large metropolitan areas.

I realize that there have been allegations that the agency's practices may have subjected it to fraud and abuse. I do not believe that to be a problem, however. The mass transit community is very small, and because federal dollars are so precious to us, we watch each other to see who gets what funding and how much. If substantial funding was going to "undeserving" operators you would have heard screams from coast to coast. This is not to say that each individual operator always agrees with the priority placed on "competitors" projects; but we do not believe we've seen funds going to projects that would be termed fraudulent or abusive of the Federal UMTA mandates.

INSUFFICIENT STAFFING AND CONFLICTING RULES

There are some observations I would like to share with you related to overall UMTA management. The UMTA program is structured such that the burden of management compliance is on the operator through a self-certification process. We endorse this concept because it fosters good project management among the grantees, and also because, in theory, it frees UMTA staff from the minute details of grant administration and allows them to focus on the broader issues.

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Nevertheless, we believe that the regional staffing has become too thin. For example, staff in the San Francisco Region IX Office has shrunk 25% during the past five years. In order for us to deliver projects on schedule, we need to have access to staff with decision-making authority, and we believe that is most appropriate at the regional level where staff are familiar with our projects.

It also appears to us that in the current environment, the limited staff are encouraged not to focus on innovative measures to enhace public transit, but rather, to try to avoid negative feedback as best they can. There can be no doubt as to the past Administration's position that the Federal government's role in mass transit should be a decreasing one. While the current Administration does not seem as intent on deleting the program, we believe we have some distance to travel to get preferred program status. In the absence of support by the Adminstration leaders, the most visible feedback on the agency's role seems to come from the Department of Transportation's Office of the Inspector General. Has anyone from that office ever congratulated UMTA for completing an exceptionally good mass transit project? Not that I know of. The system is not set up to award good work, rather it is designed to detect technical flaws. Given this system, is it any wonder that UMTA, with its short staffing, might sometimes emphasize crossing t's and dotting i's to the detriment of providing real leadership in mass transit issues? Some common sense in this area would do a world of good. I am impressed that good projects can survive the maze as often as they do.

These problems are compounded by some of the conflicting rules under which UMTA operates. For example, while UMTA's privatization policy emphasizes contracting out existing jobs when it is deemed more efficient, another regulation, Section 13(c), requires maintaining jobs for current employees. What does UMTA do if I want to purchase new buses for a route? Section 13(c) says I must maintain that route without hurting my workforce to get Federal funding for the buses; at the same time, the private sector might be able to provide service on that route at a more efficient level if I can offer them the vehicles they need. There are other examples of conflicting issues that I would be happy to comment on later, if you wish.

A DEDICATED FEDERAL REVENUE SOURCE

Beyond these issues, our major concern is that it is difficuit for us to plan and manage projects when our funding partner cannot guarantee a stable flow of revenues beyond the current grant or authorization period. We are running a business that operates with a very long time frame. We need to produce five, seven, and ten-year operating and capital plans to comply with federal, state, and regional mandates. We now have a 20 year expenditure plan which the citizens of San Francisco approved when they voted to impose a 1/2¢ sales tax for transportation last November. Yet the Federal funding we count on to implement these plans is both uncertain and shrinking. Clearly, part of the solution is to expand the dedicated funding source for transit. We also believe that the flexibility to allocate dedicated funds between highway and mass transit projects should be an objective so that transportation funding decisions are not biased towards a particular mode.

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In closing, I want to thank you for the chance to share our thoughts about the current state of UMTA and our general thoughts on directions to take in any reauthorization legislation. We look forward to working with you and your staff on these and other issues raised during the upcoming reauthorization deliberations.

1586M

TESTIMONY BY JAMES E. READING, DIRECTOR
SANTA CLARA COUNTY TRANSPORTATION AGENCY

PUBLIC HEARING OF THE SENATE HOUSING AND URBAN AFFAIRS SUBCOMMITTEE

AUGUST 8, 1990

GOOD MORNING MR. CHAIRMAN. I AM JAMES READING, DIRECTOR OF THE SANTA CLARA COUNTY TRANSPORTATION AGENCY, THE OPERATOR OF THIS COUNTY'S BUS AND LIGHT RAIL SYSTEMS.

IT IS INDEED MY PLEASURE TO APPEAR BEFORE YOU TODAY AS PART OF THIS BAY AREA TRANSIT OPERATORS PANEL TO PROVIDE COMMENTS WITH RESPECT TO UMTA'S REGULATIONS AND PROCEDURES FROM THE PERSPECTIVE OF THE SANTA CLARA COUNTY TRANSIT DISTRICT.

BEFORE I ELABORATE ON SPECIFIC MATTERS REGARDING UMTA REGULATIONS AND PROCEDURES, I WOULD LIKE TO INDICATE TO THIS SUBCOMMITTEE THAT THE SANTA CLARA COUNTY TRANSIT DISTRICT CONTINUES TO HAVE AN OVERALL POSITIVE WORKING RELATIONSHIP WITH BOTH THE REGIONAL AND WASHINGTON OFFICES OF UMTA. MUCH OF THE PROBLEMS THAT THIS DISTRICT HAS ENCOUNTERED PARTICULARLY IN THE PAST YEAR MAY BE A DIRECT RESULT OF THE CURRENT SHORTAGE OF EXPERIENCED PROFESSIONAL STAFF AT ALL LEVELS OF UMTA. THIS SITUATION HAS BECOME ABUNDANTLY CLEAR AS WE HAVE EXPERIENCED REVIEW AND APPROVAL DELAYS IN BOTH THE AREA OF GRANTS AND PLANNING STUDIES. UNLESS THE STAFF SITUATION IS CORRECTED, THESE PROBLEMS WILL NOT ONLY PREVAIL, BUT WILL INTENSIFY. IT IS IMPERATIVE THAT BOTH CONGRESS AND

THE ADMINISTRATION REVERSE THE STAFFING DILEMMA AT UMTA THROUGH INCREASED BUDGET FOR OPERATIONS AT BOTH THE REGIONAL AND NATIONAL LEVELS OF UMTA.

I WOULD NOW LIKE TO DIRECT MY COMMENTS BACK TO THE CONCERNS ALLUDED TO EARLIER IN MY COMMENTS.

FIRST, IN THE AREA OF GRANTS AND UMTA REGULATIONS. IN SEPTEMBER 1989, THE SANTA CLARA COUNTY TRANSIT DISTRICT SUBMITTED TO UMTA REGION IX, A SECTION 3 GRANT APPLICATION FOR 20 EXPANSION BUSES. TO DATE, NEARLY A YEAR LATER ... THE DISTRICT HAS YET TO RECEIVE FORMAL WRITTEN NOTIFICATION ON EITHER APPROVAL OR REJECTION OF THE GRANT. OVER THE PAST SEVERAL MONTHS, THE DISTRICT'S STAFF HAS BEEN TOLD VERBALLY THAT THE 20 EXPANSION BUS APPLICATION WAS UNDER REVIEW. THROUGH THESE VERBAL DISCUSSIONS, IT HAS ALSO BECOME APPARENT THAT THE APPLICATION APPROVAL HAS BEEN PLACED ON HOLD BY REGION IX BECAUSE OF ITS DISSATISFACTION WITH THIS DISTRICT'S ESTABLISHED AND ADOPTED PRIVATE SECTOR PARTICIPATION PROCESS WHICH WAS DEVELOPED BASED ON UMTA GUIDELINES AND CIRCULAR 7005.1. THE DISTRICT'S PROCESS IS ON FILE WITH REGION IX SINCE THE SPRING OF 1988, AND UMTA HAS NEVER PREVIOUSLY INDICATED PROBLEMS WITH THE DISTRICT'S PROCESS. IT IS OUR UNDERSTANDING THAT CONGRESS DIRECTED UMTA TO ESTABLISH GUIDELINES PERTAINING TO PRIVATE SECTOR PARTICIPATION, BUT DID NOT PASS ON STATUTORY AUTHORITIES ... PARTICULARLY AS THEY RELATE TO GRANT APPROVAL. IN FACT, CONGRESS WAS QUITE

SPECIFIC THAT UMTA DID NOT HAVE THE AUTHORITY TO WITHHOLD GRANT APPROVAL BASED ON PRIVATE SECTOR PARTICIPATION. IN THE VIEW OF THE DISTRICT, ALL OF THE APPLICATION REQUIREMENTS HAVE BEEN SATISFIED INCLUDING THE PRIVATE SECTOR PARTICIPATION PROCESS.

APPROVAL OF THE 20 EXPANSION BUS APPLICATION IS VERY IMPORTANT TO THIS DISTRICT. WITH BUS RIDERSHIP REACHING RECORD LEVELS AND STILL RISING, THE ADDITIONAL BUSES WHICH WE HOPE TO PURCHASE THROUGH THIS GRANT ARE CRITICAL TO OUR OPERATIONS. WE HAVE HAD TO PLACE INTO SERVICE OLDER AND LESS RELIABLE EQUIPMENT IN ORDER TO MEET THE GROWING DEMAND FOR MASS TRANSIT IN THIS COUNTY.

SECONDLY, IN THE AREA OF PLANNING STUDIES AND UMTA PROCEDURES. THE SANTA CLARA COUNTY TRANSIT DISTRICT IN COOPERATION WITH THE METROPOLITAN TRANSPORTATION COMMISSION HAS BEEN INVOLVED FOR SOME TIME IN A FEDERALLY APPROVED ALTERNATIVES ANALYSIS AND DRAFT ENVIRONMENTAL STUDIES FOR THE TASMAN TRANSPORTATION CORRIDOR. THIS IS AN IMPORTANT COMMUTE CORRIDOR LINKING THE EAST BAY WITH THE HIGH TECH "SILICON VALLEY" EMPLOYMENT CENTERS SUCH AS LOCKHEED IN SANTA CLARA COUNTY. OVER THE PAST YEAR, THE NECESSARY CHAPTERS TO THE ALTERNATIVES ANALYSIS AND THE DRAFT ENVIRONMENTAL STUDY HAVE BEEN SUBMITTED TO UMTA'S WASHINGTON OFFICE FOR REVIEW AND APPROVAL. BOTH THE SHORTAGE OF STAFF AND UMTA'S RIGID POLICIES PERTAINING TO COST-EFFECTIVENESS AND NEW RIDERSHIP

HAS CREATED EXTENDED REVIEW AND APPROVAL PROBLEMS AND DELAYS FOR THE TASMAN CORRIDOR AND HAS SEVERELY IMPACTED THE LOCAL ALTERNATIVES SELECTION PROCESS.

THESE ARE TWO EXAMPLES OF ISSUES CURRENTLY FACING THIS TRANSIT DISTRICT. AS INDICATED EARLIER IN MY TESTIMONY, SHORTAGE OF PROFESSIONAL STAFF AT ALL LEVELS OF UMTA APPEARS TO BE A SERIOUS PROBLEM WHICH NEEDS IMMEDIATE ATTENTION BY CONGRESS AND THE ADMINISTRATION. BECAUSE OF FEDERAL AND CALIFORNIA GOALS FOR CLEAN AIR AND CONGESTION RELIEF IN THIS CENTURY, IT IS IMPERATIVE THAT TRANSIT GRANTS AND STUDIES LEADING TO NEW MASS TRANSIT SYSTEMS BE REVIEWED AND APPROVED IN AN EXPEDITIOUS MANNER.

THANK YOU FOR ASKING ME TO PARTICIPATE ON THIS PANEL TODAY.

Reed L. Royalty
Area Vice President

508 South Main Street
South Tower, Room 1200
Orange, California 92668
(714) 972-7879

PACIFIC BELL.
A Pacific Telesis Company

December 13, 1990

Senator Alan Cranston
Committee on Banking, Housing
& Urban Affairs
Washington, D. C. 20501-6075

Dear Senator Cranston,

It is my pleasure to respond to your request for ideas on the most effective way for the federal government to help ease traffic congestion. This is one of the most important problems facing our Southern California communities, and while we are working hard to help ourselves, the proper form of federal assistance could help measurably.

You will see from my answers to your questions that we would prefer federal help in the form of incentives to stimulate the private sector. I believe that this method will provide more profound and economically sound benefits.

I am indebted to Mr. Allen Goody, of the Transportation Concepts Group, for the research in support of these answers.

Thank you for your inquiry. I would be pleased to work with you and your staff on this important subject.

Sincerely,

R L Royalty

Reed L. Royalty
Area Vice President
Pacific Bell
and Chairman, Orange County
Transportation Coalition

cc: Dana Reed, Chairman, Orange County Transportation Commission
Allen Goody, Transporation Concepts

RESEARCH AND DEVELOPMENT

As public transit is used more and more to help solve problems of congestion, air quality, and productivity, technology will have to expand the current capacity of this mode of transportation.

How can the federal government more effectively assist those technological advances through better transit services?

Stimulate Research and Development efforts by the private sector. This could be accomplished in at least three ways:

-Tax incentives for Research and Development work in the field of transit and information transfer;
-Release of federal gas tax funds for specific national projects; and
-Joint venturing with private sector on advanced transit projects.

LOCAL ORDINANCES

A few local governments have adopted ordinances that reward employers who establish company transit programs.

In what ways could you support significant federal efforts and incentives to encourage other local governments to adopt similar laws without interfering in their respective authorities?

To what extent could these types of ordinances become a much larger part of a national transportation policy? Or do they only have a limited capacity to help ease congestion?

1. If local governments can incent employers, then the federal government could do similar efforts toward local governments. Perhaps providing an information exchange on ideas that work is all that is needed, as opposed to some federal mandate or subsidy.

2. Policies allowing free market choice of alternatives will work. Ordinances to force actions will not ease congestion. Government policy which rewards or provides incentives to communities or the private sector to solve the problem will have a much greater capacity to help ease congestion.

SHIFT OF EMPHASIS

Our new policy must take into consideration land use, air quality, and economic considerations in moving as many people -- rather than as many vehicles -- as possible. This requires a better mix of transportation methods to enhance the advantages that each one offers.

How can federal assistance encourage such a shift of emphasis from vehicles to people?

How can we improve federal transportation policy to allow states, localities, and regions the flexibility to choose the most appropriate mix of transportation?

1. Before an emphasis shift from vehicles to movement of people can be accomplished in Southern California, reasonable alternative modes must be expanded and/or developed.

Reasonable means:
- -Fast;
- -Cost effective (for both rider and operator); and
- -Safe.

The federal emphasis should be aimed at encouraging private enterprise to work toward the desired goals by encouraging innovation and cutting red tape. A combination of tax incentives and key system projects could encourage activity to accomplish the desired shift.

2.Local authorities are best-qualified to determine local mode splits, and local determination should be encouraged by federal actions. At the federal level, for example, IRS tax policy needs to be changed to encourage van pools and alternate mode transit. As it is now, when companies encourage their employees to van pool by subsidising the van, federal tax policy considers the money as taxable ordinary income to the van riders. In fact any company payment over $25 to encourage automotive alternatives must be reported as income to the employee!

CLEAN AIR AMENDMENTS

What kind of additional burdens on mass transit do you anticipate as a consequence of the Clean Air Amendments?

How could federal mass transit policy help achieve the goal of the Clean Air Amendments, namely, healthy air in every region of the country?

1. Most transit systems have additional capacity now. If Clean Air Amendments cause displacements (from automobiles to trains, for example) some transit systems might have to add capacity. In areas where alternatives are not now available, the "burden" will be that of planning and providing viable alternatives. If federal policy is done correctly now, these alternatives will be in place in time to meet clean air requirements, and there will be no sudden "burden".

2. Encourage private systems and new thinking toward the problems of people and information movement. It is better to provide tax incentives for Research, Development, and Construction so that private industry, in conjunction with local governments, can make it work. Direct system subsidy is the alternative, but not a preferred course of action. Here are additional ideas:

-Market-based congestion pricing. This can shift trip timing, thus lowering congestion, help clean the air and reduce fuel consumption.

-Fuel re-formulation. Encourage this activity by tax incentives.

-Alternative fuels. Don't require specific alternative fuel. Let the market decide, but assist infrastructure so that each can be obtained.

-Encourage Telecommuting.

-Have the Department of Defense change rules so large defense contractors can use this trip-reduction technique
-Joint venture with industry to provide a few prototypes of telecommuting ("satellite") centers. Start by having federal workers utilizing such a center.
-Allow telephone companies to compete with cable companies
-Stimulate the installation of optical cable to each home (would allow easier and better telecommuting).

○